

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #13



For Release:

John Lawrence, Johnson Space Center

713-525-5111

Ken Senstad, Kennedy Space Center

305-867-2468

RELEASE NO. 82-030

May 25, 1982

LONG-DURATION SIMULATION

A 57-hour simulation of the fourth flight of the Space Shuttle Columbia will be conducted at NASA's Johnson Space Center, Houston, beginning 8 a.m. Tuesday, June 1.

The simulation will pick up the mission at one day, 18 hours and 30 minutes after launch. Since the activity involves some classified aspects pertaining to the Department of Defense, the simulation will be closed to the press, and public tours of the Mission Control Center will be suspended.

Astronauts and ground-based flight controllers gain realistic experience during these flight simulations. The time segment involved covers a major portion of critical tests scheduled for STS-4.

Crew members are Thomas K. Mattingly (Capt., U.S. Navy), commander, and Henry W. Hartsfield, pilot. For the exercise, they will be in a simulator which provides sensory and data

feedback identical to that which they will experience in Columbia during flight. The simulator will be integrated with the Mission Operations Control Room at Houston, where three crews of flight controllers will alternate shifts.

Simulation hardware has the added feature of being able to introduce imaginary problems to the participants. Problems are scripted in advance but are unknown to the participants. Consequently, flight and ground crews receive realistic training in dealing with unexpected events like those which might occur during an actual mission.

In addition to this long-duration exercise, many shorter simulations are conducted which focus on other special segments of the STS-4 flight plan. Among these are various launch and landing situations, as well as critical on-orbit operations.

STS-4 is scheduled as a seven-day mission with launch planned no earlier than June 27. It is the final Space Shuttle orbital test flight.

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NASA News

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23665
AC 804 865-2934

1F.6 A26

Jean W. Saunders
(804) 865-2934

For Release:
Upon Receipt

RELEASE NO. 82-100

MOORE NAMED MANAGEMENT OPERATIONS SPECIAL ASSISTANT

Hampton, Va.--Frederick L. Moore has been selected as Special Assistant for Productivity Improvement of Management Systems, Office of the Director for Management Operations, at NASA's Langley Research Center. He was formerly Head, Institutional Programs Branch, Program and Resource Division.

In this recently created position, Moore serves as the center's focal point for the design and implementation of automated management systems.

Moore began his NASA career in June 1966 as an aerospace technologist in the Full-Scale Wind Tunnel. From 1970 to 1976 he was assigned to the Army and worked in the Flight Dynamics and Control Division and the Rotor Systems Research Aircraft Project Office. From 1976 to 1981 he was Head, Project Planning and Control Office in the Project Management Systems Division. He has specialized in stability and control analysis, pilot-in-the loop simulation, project planning and cost estimating of aerospace and aircraft systems.

A native of East Liverpool, Ohio, Moore attended West Liberty State College. He received bachelor and master of science degrees in aerospace engineering from West Virginia University in 1966 and from Virginia Polytechnic Institute in 1969, respectively.

- more -

December 22, 1982

MOORE NAMED MANAGEMENT OPERATIONS SPECIAL ASSISTANT

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The author or co-author of 16 technical publications, Moore is a member of the International Society of Parametrics.

Moore and his wife, Rosalyn, live in Newport News. They have a daughter and a son.

- end -

NASA News

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23665
AC 804 865-2934

1F.6 H16

H. Keith Henry
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For Release:
Upon Receipt

RELEASE NO. 82-101

NASA FINDS NEW TECHNIQUES FOR MAPPING EARTH'S GASES

Hampton, Va.--A new technique for mapping gases in the earth's atmosphere proved accurate when compared to ground-initiated studies.

The Measurement of Pollution from Satellites (MAPS) experiment flown aboard the second Shuttle flight November 1981, charted concentrations of carbon monoxide around the world over a range from 38 south to 38 north latitudes.

The experiment was flown as part of the first scientific payloads on the Shuttle and used a gas filter radiometer to produce measurements of the carbon monoxide mixing ratio in the middle and upper troposphere and lower stratosphere.

Because of the coverage afforded by an orbiting spacecraft, a remote sensor measurement (of which the MAPS experiment is an example) will establish the global pattern of the distribution of the gas in a way that cannot be achieved using direct measurement methods (such as a gas chromatograph).

The major objectives of this experiment are to measure the mixing ratio of carbon monoxide in the middle and upper troposphere as a function of latitude, longitude, and season; to define the operational characteristics of the instrumentation system as part of an orbiting spacecraft; and to evaluate and refine the method of data inference. The results obtained to date indicate that all of

these objectives will be achieved.

During the flight of STS-2 the MAPS experiment obtained data over about one million kilometers (620,000 miles) of the orbital track. The data taken on Orbit 15, for example, began over South America, crossed the Atlantic, continued east over the Mediterranean Sea, turned southeast over the Persian Gulf, the Arabian Sea and extended to the southern tip of India. The mixing ratio of carbon monoxide over this extended area ranged from about 70 parts per billion over the Atlantic Ocean to a high of about 120 parts per billion over the eastern Mediterranean Sea.

The analysis of experiment data so far indicate significant concentrations of middle troposphere carbon monoxide mixing with both north/south and east/west variation over the north Atlantic and the Mediterranean Sea and the Middle East. Accuracy of the measurements has been determined to be within 15 percent with a repeatability of about 5 percent from orbit to orbit.

NASA plans to refly this experiment on the 17th Shuttle, scheduled for the summer of 1984, to study seasonal variations in the total abundance and regional distribution of carbon monoxide within the earth's atmosphere.

Although the STS-2 flight was abbreviated, the experiment was on for about 42 hours, and the investigators were able to corroborate the sampled areas with the instrument readings taken with under-flying aircraft.

The MAPS experiment was developed at NASA's Langley Research Center, Hampton, Va. The MAPS experiment team, which consists of personnel from Langley, Old Dominion University, Norfolk, and the Systems and Applied Sciences Corporation, Hampton, is led by Dr. Henry G. Reichle, Jr., the principal investigator.

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(NOTE: NASA-LANGLEY PHOTOGRAPHS ARE AVAILABLE TO ACCOMPANY THIS RELEASE AND WILL BE PROVIDED BY PHONING KEITH HENRY AT (804) 865-2934.)

NASA News

1F.5 7/19

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC RELEASE NO. 2-82
Mark Hess

Immediate

NOTICE TO EDITORS/NEWS DIRECTORS

RCA SATCOM-E News Conference Scheduled for January 13

KENNEDY SPACE CENTER, Fla.--The prelaunch press conference for the RCA SATCOM-E mission, scheduled for launch on January 14, will be held Wednesday, January 13 at 11 a.m. in the Conference Room of the E&O Building, Cape Canaveral Air Force Station.

Launch of the RCA SATCOM-E satellite aboard Delta 159 from Complex 17 at Cape Canaveral Air Force Station is scheduled January 14 during a window extending from 8:50 to 9:30 p.m.

RCA SATCOM-E is the fifth spacecraft in a series of domestic communications satellites, launched by NASA, and owned and operated by RCA American Communications.

News media representatives with permanent badges may attend the news conference by driving directly to the E&O Building via Gate 1, Cape Canaveral Air Force Station, or the NASA Causeway which is accessible via Florida Route 3 or U.S. Route 1, two miles south of Titusville. Those without permanent badges should call the KSC News Center at AC 305 867-2468 to make necessary badging arrangements.

On launch day, media representatives with permanent badges may drive directly to Press Site 1 on Cape Canaveral Air Force Station. Others will be badged at the Gate 1 Pass and Identification Building at Cape Canaveral Air Force Station accessible via Florida Route 401 between 7:30 and 8:15 p.m.

Those unable to cover the pre-launch press conference or the launch may monitor either event by dialing the KSC Operator at AC 305 867-7110 and asking for the V-2 circuit.

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January 7, 1981

NASA News

1F.5 #19

1-7

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC Release No. 3 - 82
Dick Young - 305-867-2468

Immediate

SHUTTLE CREW TO RETURN TO KSC JANUARY 11; VISIT OPEN TO PUBLIC

KENNEDY SPACE CENTER, Fla. - Astronauts Joe Engle and Dick Truly who flew the Space Shuttle on its second mission into space last November will return to KSC to pay a crew's traditional respects to the launch team on Monday, January 11.

And this time the public will be invited to watch the show.

The ceremony will be held at the Visitors Center outside the KSC security area at 2 p.m. to permit the public, which watched the spectacular show of launch and landing vicariously on television, to become more active participants in the nation's space effort.

Engle and Truly will fly to KSC from the Johnson Space Center in Houston, Texas, and land at 1:30 p.m. on the large Shuttle Landing Facility onto which a shuttle is expected to make a landing from a mission in space for the first time during 1982.

They will then proceed to the KSC Visitors Center - accessible from Florida Route 3 on Merritt Island or the NASA Causeway off U. S. Route 1 two miles south of Titusville for the 2 p.m. ceremony.

Master of ceremonies for the event will be KSC Director Richard G. Smith, who will introduce U.S. Congressman Bill Nelson, Dr. Robert Gray, Manager of KSC's Shuttle Program Office, and George Page, KSC's Director of Launch Operations.

Page, who directed the team that successfully launched the crew on its mission in space, will introduce the crew. After brief remarks, Engle and Truly will unveil the official plaque which will be placed in KSC's Launch Control Center to commemorate the second Space Shuttle mission.

KSC Director Smith will then present the crew with large, framed photographs of STS-2 as it erupted from Pad A at Launch Complex 39.

more

KSC Release No. 3 - 82

After the ceremony, the crew will proceed on to the Shuttle Landing Facility and fly out for a week-long series of public appearance stops before returning to Houston.

Music for the ceremony at the Visitors Center will be provided by the Titusville High School Band.

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January 7, 1982

NASA News

1F.5 #19

1-8

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867 2468

For Release:

Steve Newborn
Area Code 305-427-2468

Immediate

KSC RELEASE NO. 5-82

SPACEPORT VISITORS CENTER HAS RECORD-SHATTERING YEAR

KENNEDY SPACE CENTER, FLA. -- The historic first two launchings of the Space Shuttle Columbia in 1981 contributed to a record-smashing year for visitor attendance at NASA's John F. Kennedy Space Center. Over two million people visited the KSC Visitors Center in 1981, by far the largest turnout recorded since the Visitors Center opened in 1966.

The two million visitors who viewed the various exhibits in the Visitors Center represented an increase of over 300,000 people from 1980's attendance figures. The attendance records for every month of 1981 were the highest figures for those months since 1973.

✓ Monthly attendance records were broken for eight months in the year, with the months of January through May turning in record-breaking figures. Over 117,000 witnessed the Center's various demonstrations and exhibits in December, the largest figure for that month since 1972. In July, over 200,000 people visited the Center, the largest figure for any month in eight years.

The Visitor Center's tours and up-to-date exhibits of the space program have been some of the main attractions to visitors of the Space Center. Space Shuttle buffs can see a large-scale model of the Shuttle and view a videotape of the second Space Shuttle launch and mission highlights, one of the newest attractions at the Visitors Center.

Actual Mercury, Gemini and Apollo spacecraft which flew missions and were recovered from the ocean are on exhibit at the Center, in addition to the many historical and educational exhibits that are located in two buildings that are open to all visitors.

The popular bus tour of the Kennedy Space Center's launch sites and installations has also broken all previous yearly records, and surpassed 1980's attendance figures by 25 percent. The 116,617 visitors who went on the tour in December was the largest figure for that month in nine years.

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To accommodate the burgeoning influx of visitors, the Visitors Center will embark on a \$6.5 million expansion plan in 1982. Design reviews will be completed and ground-breaking for new facilities will begin early in the year.

Construction of a five-story Imax theater, one of the most unique movie theaters in the world, is scheduled to begin early this year, and is slated for completion in late 1983.

January 8, 1982

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m. Ken Lewis
~~Frank Barrett~~
SI
SI-SRV-1

NASA News

1F.5 #19

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC RELEASE NO. 6-82
Ann Skinner
Area Code 305 867-2468

MARTIN MARIETTA DENVER AEROSPACE WINS NASA CONTRACT ADDITION

KENNEDY SPACE CENTER, Fla.--Martin Marietta Denver Aerospace of Denver, Colorado, has been awarded a multi-million dollar addition to its contract with NASA's Kennedy Space Center.

Martin Marietta will provide the hardware for the checkout, control and monitor subsystem in Firing Room 3 of KSC's Space Shuttle Launch Control Center, which is now being prepared for regular shuttle operations. The company will also provide some similar equipment for the shuttle Launch Processing System at Vandenberg Air Force Base, California.

The value of the contract addition is \$9,078,367, bringing the total value of the contract since 1975 to \$111,193,217.

The checkout, control and monitor subsystem is composed of consoles, mini-computers, a large mass storage unit and related equipment. It is used to actually process and launch the Space Shuttle. Firing Room 3 will be a duplicate of Firing Room 1, from which the shuttle's developmental launches have been controlled. Firing Room 2, located between 1 and 3, will be used to develop software for the subsystem.

The Space Shuttle is a revolutionary new transportation system designed to provide routine and economical access to and return from space for industrial, scientific and defense users. The first two developmental flights in April and November were highly successful. The third is planned for this spring and the fourth and final developmental mission is expected this summer.

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January 11, 1982

NASA News

IF.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC Release No. 7 - 82
Dick Young - 305-867-2468

Immediate

NOTICE TO EDITORS/NEWS DIRECTORS:

BRIEFING ON THIRD SHUTTLE MISSION SCHEDULED FOR JANUARY 15

KENNEDY SPACE CENTER, Fla. - A news briefing on the status of preparations for the launch of the third Space Shuttle mission will be held in the Auditorium of the Audio Visual Center at the Complex 39 Press Site at 11 a.m. on Friday, January 15.

Making presentations on the status of the Space Shuttle Orbiter Columbia and other shuttle elements will be Jim Harrington, chief of orbiter operations, and James A. Thomas, project engineer.

Media representatives with permanent credentials may drive directly to the Complex 39 Press Site. Those without should call the News Center at Area Code 305-867-2468 and make the necessary badging arrangements.

Those unable to attend the briefing in person may monitor it by calling the KSC Operator at Area Code 305-867-7110 and asking to be connected with the V-2 Circuit.

The briefing - audio only - will be piped into NASA Headquarters in Washington, D. C., the Johnson Space Center in Houston, Texas, the Marshall Space Flight Center in Huntsville, Ala., and the Dryden Flight Research Facility at Edwards, California, and may be monitored at those locations. There will be a two-way question and answer capability at these remote locations.

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January 12, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Steve Newborn
Area Code 305-867-2468

For Release:
Immediate

KSC RELEASE NO. 10-82

SHARPES FIRM AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a contract to Precision Fabricating and Cleaning, Inc., P.O. Box 69, Sharpes, Florida. The contract calls for PF&C to manufacture hydraulic and gaseous regulation panels to be installed in Space Shuttle operational areas at KSC and at Vandenberg Air Force Base in California. The manufacturing is to take place at PF&C's Sharpes facilities.

The fixed-price contract carries a \$54,921 price tag and covers the period from when the contract was awarded on Dec. 17, 1981, until Nov. 19, 1982. The contract is one that has been set aside for award to a small business firm.

The contract calls for a remote hydrogen sensing panel to be installed in the Vehicle Assembly Building's Tower D, between High Bays No. 2 and No. 4, to sample liquid hydrogen umbilical connections of the Mobile Launcher Platforms. The Orbiter, External Tank and Solid Rocket Boosters of the Shuttle are mated on the MLP. The panel will also detect liquid hydrogen leakage in the MLP's tail service mast, which services the aft section of the Orbiter.

Other provisions of the contract include:

Fabrication of two pneumatic selector panels. One is to be installed in the Orbiter Processing Facility, where the Shuttle Orbiter is readied for launch, and the other at Vandenberg Air Force Base in California, where polar orbit flights of the Shuttle are scheduled to commence in the mid 1980's.

One hydraulic service gaseous nitrogen regulation panel to detect hydraulic vapors so a larger existing hydraulic vapor detection panel is not contaminated.

One gaseous nitrogen facility regulator in VAB High Bay No. 2 to regulate gaseous nitrogen for other ground support equipment and provide a pneumatic checkout of the Shuttle Orbiter.

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Jan. 15, 1982

NASA News

IF.5 #19

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 11-82

TITUSVILLE FIRM AWARDED SPACEPORT SUPPLY CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a contract to the Holloway Corp., Route 2, Titusville, Fl. The contract calls for Holloway to supply 10 Direct Current Power Rack Assemblies for Space Shuttle launch facilities at Vandenberg Air Force Base in California. The provisions of the contract are to be carried out at Holloway's Titusville facilities.

The fixed-price contract carries a price tag of \$136,770, and covers the period from the contract award date on Jan. 14, 1982, until Dec. 13, 1982. The contract is one that has been set aside for award to a small business firm. Holloway Corp. submitted the low bid out of three proposals received by KSC.

The Direct Current Power Rack Assemblies will supply power distribution for operational facilities at Vandenberg that require 28 volts or more of direct current power. These facilities include pneumatic and hypergolic operations that will be use in conjunction with Space Shuttle checkout and launch procedures. The 10 Power Rack Assemblies to be supplied are an addition to 50 that have already been provided to Vandenberg. Vandenberg Air Force Base will be the launch site for Space Shuttle polar orbit flights, which will commence in the mid 1980's.

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Jan. 18, 1982

NASA News

1F.5 #19

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 12-82

NEW WORLD CONSTRUCTION AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's Kennedy Space Center has awarded a construction contract to New World Construction, P.O. Box 1827, Titusville, Fl. The contract calls for construction of a storage shed at the Space Center to shield oxygen bottles that are used for a variety of purposes from the elements.

The fixed-price contract is for \$38,334, and is scheduled for completion 120 days after a notice to proceed is issued. The contract, which was awarded on Jan. 12, 1982, was one set aside for award to a small business firm. New World submitted the lowest bid out of seven proposals received by KSC.

The 18 foot by 72 foot storage shed is to be erected at the High-Purity Oxygen Facility at Launch Complex 39, where the Space Shuttle is checked out and prepared for flight. The shed will be equipped with corrugated siding to protect the oxygen bottles from deterioration and over-pressurization. The oxygen bottles will be stored in the shed until they are needed for technical and experimental purposes.

The Kennedy Space Center is NASA's primary launch and recovery site for the reusable Space Shuttle, which is now being prepared for its third flight into orbit. The Shuttle Columbia is scheduled for rollover into the cavernous Vehicle Assembly Building no earlier than Feb. 5, where it will be mated with the External Tank and Solid Rocket Boosters.

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Jan. 19, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 17-82

BAKER MARINE AWARDED SPACEPORT BRIDGE REPAIR CONTRACT

KENNEDY SPACE CENTER, Fla. - Boaters going to or from South Florida and points north who have charted a course around an aging fender system on an Intracoastal Waterway bridge at NASA's Kennedy Space Center will soon find a modern concrete fender system in place.

A bridge repair contract has been awarded by KSC to Baker Marine Enterprises, Inc., of 7402 N. 56th St., Tampa, Fla. The contract calls for Baker Marine to overhaul an aging fender system on the Space Center's Haulover Canal Bridge, which forms a stretch of the Intracoastal Waterway system.

The fixed-price contract is for the amount of \$260,980, and is to be completed 180 days after the contract was awarded on Jan. 21, 1982. The contract is one that has been set aside for award to a small business firm. Baker Marine submitted the low bid out of 10 proposals received by KSC.

The contract calls for prestressed concrete piles to be constructed to replace the existing wooden fenders, which are showing their age from years of battling the elements. The concrete fenders, which protect the bridge against wayward boaters and other floating objects, are themselves to be protected by wooden barriers, which will be attached to the fenders by spacer blocks. The fenders are to be equipped with new navigational aids, such as lights, on the fender's extremities. Catwalks and handrails are also to be constructed.

The Haulover Canal forms a convenient shortcut along the Intracoastal Waterway, which is separated from the Atlantic Ocean by a narrow barrier beach. It connects the Indian River, which is actually not a river but a saltwater arm of the Atlantic, and the aptly-named Mosquito Lagoon.

The Kennedy Space Center is NASA's primary launch and recovery site for the reusable Space Shuttle, which is now being readied for its third flight. The Shuttle Columbia is scheduled for launch in late March.

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Jan. 26, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

Steve Newborn
Area Code 305-867-2468

For Release:
Immediate

KSC RELEASE NO. 19-82

CLINTON FIRM TO SUPPLY ELECTRICAL POWER CABLE TO SPACEPORT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a supply contract to ITT's Surprenant Division, located at 172 Sterling St., Clinton, Mass. The contract calls for ITT to furnish 15,000 ft. of electrical power cable to replenish KSC's cable stock.

The fixed-price contract carries a price tag of \$41,250, and is scheduled to be completed 240 days after receiving orders to proceed. The work is to be performed at ITT's Clinton facilities.

The cable is to be used for general purposes throughout the Space Center, and for electrical transmissions at the Launch Complex 39 pads, from where NASA's reusable Space Shuttle is launched.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The orbiter Columbia is now being readied for launch in the Orbiter Processing Facility. It is scheduled to be moved into the huge Vehicle Assembly Building on February 4, where it will be mated with the external tank and solid rocket boosters. The third flight of the Columbia is scheduled for launch from Pad 39 A in late March.

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Jan. 27, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 20-82

ORLANDO FIRM TO SUPPLY EMERGENCY SHOWERS TO SPACEPORT

KENNEDY SPACE CENTER, Fla. - In a move designed to increase worker safety, NASA's John F. Kennedy Space Center has awarded a construction contract to Commercial Fire Sprinklers Inc., of 254 Fifth St., Orlando, Fla. The contract calls for the firm to install sprinklers and safety showers with eyewash units at KSC's Central Supply Building.

The fixed-price contract has a value of \$27,705, and is to be completed 90 days after the contract was awarded on Jan. 20, 1982. The contract is one that has been set aside of award to a small business firm. Commercial Fire submitted the low bid out of six proposals received by KSC.

The contract calls for installation of emergency showers and overhead sprinklers at the docks outside of the Central Supply Building. Three new safety showers are to be installed, and one existing shower facility is to be relocated. The emergency showers, coupled with adjacent eye wash basins, are used to dilute harmful substances that have come into contact with the human body. The showers are activated by standing on a foot pressurization platform, which releases a rushing torrent of water. The docks, located to the northeast and northwest of Central Supply, are used for shipping and receiving materials to and from the facility.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The Shuttle Columbia is now being readied for its third flight, which is scheduled for launch in late March.

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Jan. 27, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Roland Raab
305 867-2468

KSC RELEASE NO. 15-82

TITUSVILLE FIRM WINS SPACE CENTER CONTRACT

KENNEDY SPACE CENTER, Fla.--WILTECH of Florida Corporation, Inc., of 3015 Briarwood Lane in Titusville, Florida, has been selected for negotiations leading to an award of a contract for Space Shuttle component refurbishment and chemical analysis services here.

The contract's value and an exact statement of work will be the subject of the negotiations, which are set to begin this week. The company was one of two submitting proposals for the contract, and WILTECH was selected for negotiations. The unsuccessful submitter was Management Services, Inc., of Huntsville, Alabama, whose contract to perform similar services here is expiring.

The new contract will generally cover maintenance and refurbishment of ground support equipment and some flight hardware, such as hydraulic and pneumatic valves, regulators, cylinders, filter assemblies, gauges and several types of hoses. The company will service items to serve as spares or line replaceable units.

Other services will include sampling and chemical analysis of various fluids and gases to determine purity and identify contaminants. Examples of items to be sampled include both gaseous and liquid nitrogen, oxygen, helium, hydrogen and air, as well as miscellaneous solvents, coolants and lubricants.

The new contract is the result of a small business set aside, and will extend for one year with three additional one year option periods. Services will be performed primarily at Kennedy Space Center and Cape Canaveral Air Force Station.

The Kennedy Space Center is the primary launch and landing site for the reusable Space Shuttle, now in its four mission developmental flight series. When operational, the Space Shuttle will provide routine and economical access to and from space for a variety of commercial, government and defense users.

January 28, 1982

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NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC Release No. 18-82
Dick Young - 305-867-2468

Immediate

NOTICE TO EDITORS/NEWS DIRECTORS:

MANY SPACEPORT EVENTS SCHEDULED FOR WEEK OF FEBRUARY 1

KENNEDY SPACE CENTER, Fla. - A number of news events are scheduled at the Kennedy Space Center during the week of February 1 and this calendar is designed to help news media representatives schedule their coverage.

The week's events, in chronological order, now include:

1. Thursday, February 4 - A spacecraft display and press briefing on the WESTAR-IV mission scheduled for launch no earlier than February 25.
2. Thursday, February 4 - The move of the Space Shuttle Orbiter Columbia from the Orbiter Processing Facility to the Vehicle Assembly Building in preparation for the STS-3 mission scheduled for launch in late March.
3. Friday, February 5 - A delivery ceremony and display of the first European Space Agency-developed Spacelab flight elements. This event will be preceded on the same day by a Spacelab press briefing.
4. Saturday, February 6 - A briefing on the NASA Budget for Fiscal Year 1983.

Details on the coverage of these events follow:

The WESTAR-IV communications satellite is scheduled for launch aboard a Delta rocket from Complex 17 at Cape Canaveral Air Force Station no earlier than February 25. The spacecraft is now in Hangar AM undergoing checkout and pre-flight preparation. The spacecraft showing and press briefing will be held in Hangar AM at 10 a.m. on February 4. Media representatives with permanent credentials may drive to Hangar AM via Gate 1 at Cape Canaveral Air Force Station beginning at 9:30 a.m. A convoy will also leave for Hangar AM from the News Center at the Complex 39 Press Site at 9:30 a.m. Media representatives without permanent credentials should contact the News Center at 305-867-2468 to make the necessary access arrangements.

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Page 2 - KSC Release No. 18-82

The move of the Columbia to the Vehicle Assembly Building for mating with the solid rocket boosters and external tank for the STS-3 mission is tentatively scheduled for February 4. The planned time for the beginning of the move operation is 4 a.m. EST. Media representatives are urged to keep in contact with the News Center to make certain that operational changes will not impact their planned news coverage. As the shuttle system moves toward becoming operational, it is likely that processing operations will be conducted on a more spontaneous basis which will diminish our ability to supply the long lead time notices possible during the developmental phases of the program.

For that reason, you may find it desirable to call the News Center more frequently to check on events which you may wish to cover. We will also attempt to keep our automatic telephone system - Area Code 305-453-7020 - updated frequently to reflect any changes in operational plans.

The flight elements for the first Spacelab mission - to be flown in 1983 - arrived at KSC from the ERNO facility in Bremen, West Germany, in December. They are now undergoing processing in workstands in the high bay of the Operations and Checkout Building in the KSC Industrial Area. A delivery and dedication ceremony to be attended by high level officials from NASA and the European Space Agency will be held in the O&C high bay at 2:30 p.m. on February 5. A walkthrough of the workstands by invited guests and the press will follow.

The Spacelab ceremony will be preceded by a news conference in the auditorium of the audio-visual center at the Complex 39 Press Site at 11 a.m.

Plans for the Spacelab ceremony and collateral events are still taking shape and media representatives are urged to keep in contact with the News Center to make certain they are abreast of developments which may affect their coverage and credential requirements.

A budget briefing on the NASA budget for Fiscal Year 1983 will be held at NASA Headquarters on Saturday, February 6. The contents of this briefing will be embargoed until after the delivery of the budget message to the Congress on February 8. The briefing - without question and answer capability - will be piped into the KSC News Center and the office will be open that day for media representatives who wish to cover it. Briefing materials will also be available at KSC. Those unable to cover the briefing in person may monitor it by calling the KSC Operator at 305-867-7110 and asking to be connected with the V-2 Circuit. Please check with the News Center during the week of February 1 for the time of day the briefing will be held.

#

January 28, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

12

Steve Newborn
Area Code 305-867-2468

For Release:
Immediate

KSC RELEASE NO. 21-82

LAKELAND FIRM TO SUPPLY FUEL "VACUUM CLEANERS" TO SPACEPORT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a supply contract to Specialty Maintenance and Construction, Inc., of 4330 Drane Field Rd., Lakeland, Fla. The contract calls for 23 hypergolic fuel "vacuum cleaners" to be supplied to the Space Center. Hypergolic propellants are used to power some onboard systems of NASA's Space Shuttle Orbiter.

The fixed-price contract has a value of \$147,114, and is to be completed by Nov. 15., 1982. The contract, which was awarded on Jan. 26, 1982, is one that has been set aside for award to a small business firm. Specialty Maintenance submitted the low bid out of six proposals received by KSC and will carry out the provisions of the contract at their Lakeland facilities.

The "vacuum cleaners," or hypergol spill aspirators as they are officially named, are used to clean up minor spills of hypergolic propellants, which are used to power the orbital maneuvering and reaction control systems onboard the Space Shuttle Orbiter. Spills of three gallons or less of the fuels are classified as minor spills. The aspirators are to be supplied to KSC facilities where hypergols are stored and transported, such as Pad B at Launch Complex 39, where the Space Shuttle will be launched in the mid 1980's. A similar system is already in place at Pad 39A, the current Shuttle launch site. Hypergolic propellants such as hydrazine, monomethylhydrazine and nitrogen tetroxide are used to power the Orbiter's secondary propulsion and hydraulic systems. An ignition system is not needed because these propellants ignite on contact.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The unprecedented third launch of the Columbia is scheduled for late March.

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Feb. 2, 1982

NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC Release No. 25-82
Dick Young - 305-867-2468

February 3, 1982

NOTICE TO EDITORS/NEWS DIRECTORS:

SPECIAL PRESS BADGES REQUIRED FOR VICE PRESIDENTIAL VISIT

KENNEDY SPACE CENTER, Fla. - Vice President George Bush will visit the Kennedy Space Center on Friday, February 5, in connection with the delivery ceremony for the first flight elements of the European Space Agency-built Spacelab.

Special press credentials will be required for access to KSC on that date and all news activities will be staged from the Complex 39 Press Site. The permanent press badges issued to local news media will not be valid for Friday's activities.

The special badges may be obtained at the Pass and Identification Building located near Gate 2 on Florida Route 3 on Friday from 9:30 a.m. until 1:30 p.m. and media personnel should drive immediately to the Complex 39 Press Site. The badge will not be valid for unescorted access into the Industrial Area and the Operations and Checkout Building where the Spacelab ceremony will be held.

Special Secret Service clearances will not be required but all media representatives must be able to provide proof of identity and affiliation.

Events scheduled on Friday include a news conference on the Spacelab Program in the auditorium of the Press Site Audio-Visual Center at 11 a.m. and the delivery ceremony for the Spacelab flight elements to be held in the Operations and Checkout Building in the Industrial Area at 2:30 p.m.

Vice President Bush is scheduled to arrive at the Shuttle Landing Facility shortly before the ceremony.

Media representatives requiring additional information on the day's events should contact the KSC News Center at 305-867-2468. Press transportation to cover all activities will be provided from the Press Site.

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

11057-E
IF.5 #19

For Release:

Release No: 26-82
Mark Hess Area Code 305 867-2468

February 9, 1982

STS-3 ASTRONAUTS SET TO FLY SHUTTLE ON MOCK MISSIONS FEB. 12-13

KENNEDY SPACE CENTER, Fla.--An extensive week-long series of checks of the assembled Space Shuttle vehicle to verify its readiness for a March 22 launch will conclude this week with STS-3 astronauts taking the vehicle on three mock mission simulations.

February 12 and 13, STS-3 prime crew members Jack Lousma and Gordon Fullerton, and backup astronauts Ken Mattingly and Henry Hartsfield, will fly the Columbia on a mock liftoff, return to launch site abort and a descent from orbit to a simulated landing on the dry lake bed at Edwards, California.

The simulations are part of a seven-day long test called the Shuttle Interface Test. The test began February 6. The bulk of the test is devoted to checkout of individual systems onboard the orbiter, external tank and solid rocket boosters, and integrated tests to verify critical electrical and mechanical connections between the Shuttle elements.

Among the systems checked out during the first portion of the Shuttle Interface Test are the orbiter's electrical distribution, environmental control, instrumentation, flight control and propulsion systems.

Parallel to testing of orbiter systems, checks are made of the external tank's instrumentation, power, range safety and tumble valve systems. Checks of solid rocket booster hydraulic, electrical, instrumentation and range safety systems are also performed during this period.

The three simulated missions, phase II of the Shuttle Interface Test, are called DIT runs for Dynamic Integrated Tests. Special software programs have been loaded into Columbia's onboard computers and into the ground-checkout computers in the Firing Room to "fool" the Shuttle into thinking it is flying an actual mission. This portion of the Shuttle Interface Test is scheduled to take about 52 hours.

-more-

The first simulation will be a nominal launch and ascent into orbit. It will start on Friday, February 12. The T-0, or simulated launch time for the ascent run, is tentatively set for 10 a.m. that day.

The T-0 for the second run, simulating a Return-to-Launch-Site abort with the orbiter's backup flight system in control of the vehicle, is scheduled for 2 a.m. on Saturday.

Both of the launch simulations will start with the countdown clock at the T-4 hours and 30 minute mark. The crew will enter the orbiter vehicle at the T-25 minute mark, followed by a 30 minute hold. Other hold points during the terminal portion of the countdown will occur at T-20 minutes for 20 minutes, T-9 minutes for 10 minutes and T-31 seconds for 5 minutes.

The final simulation, a descent from orbit, is currently set for a T-0 at 6 p.m. on Saturday. The T-0 for the descent run simulates firing of the Orbital Maneuvering Engines to slow the speed of the orbiter for the return from orbit. The mock landing will take about one hour to complete.

The day after the Shuttle Interface Test concludes, technicians will install explosive charges in the twin booster rockets, followed by two days of final preparations for moving the Shuttle vehicle to Complex 39's Pad A.

Rollout of the STS-3 vehicle to the launch pad is tentatively set for February 17.

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SI-SRV-1
SI
~~Frank Garrett~~
Ken Lewis

February 9, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

For Release:

CORRECTION TO KSC RELEASE NO. 26-82
Mark Hess

February 10, 1982

NOTICE TO EDITORS/NEWS DIRECTORS

ASTRONAUT CREW FOR SHUTTLE INTERFACE TEST CHANGES

KENNEDY SPACE CENTER, Fla.--This notice represents an update of KSC Release No. 26-82 dated February 9, 1982, and titled "STS-3 Astronauts Set To Fly Shuttle On Mock Missions Feb. 12-13."

The astronaut crews expected to participate in the Shuttle Interface Test have changed.

Vance Brand and Bob Overmyer have replaced Ken Mattingly and Henry Hartsfield as the astronaut crew for the ascent simulation scheduled for Friday, February 12. The T-0 for that first run is 10 a.m.

STS-3 prime crew members Jack Lousma and Gordon Fullerton will participate in the Return-To-Launch-Site abort and descent runs, scheduled for Saturday, February 13. The T-0 for the RTLS is set for 2 a.m. Saturday, and the T-0 for the entry simulation is scheduled for 6 p.m. Saturday.

That release remains valid as to other information pertaining to the Shuttle Interface Test and the anticipated February 17 rollout to the launch pad.

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #18



KSC Release No. 32-82
Dick Young - 305-867-2468

For Release:
Immediate

NOTICE TO EDITORS/NEWS DIRECTORS:

WESTAR IV PRE-LAUNCH CONFERENCE SCHEDULED FEBRUARY 24

KENNEDY SPACE CENTER, Fla. - A pre-launch news conference on the WESTAR-IV mission scheduled for launch on February 25 will be held at 11 a.m. on Wednesday, February 24.

The news conference will be held in the Conference Room of the E&O Building on Cape Canaveral Air Force Station at 11 a.m. EST.

News media personnel with permanent credentials may drive directly to the E&O Building via Gate 1 at Cape Canaveral Air Force Station beginning at 10:30 a.m. or via the NASA Causeway from the Kennedy Space Center.

Those without permanent credentials must contact the KSC Public Information Office at Area Code 305-867-2468 to make the necessary badging arrangements. Those in this group should report to the KSC News Center at the Complex 39 Press Site no later than 10:30 a.m. to join the convoy leaving for the E&O Building.

WESTAR-IV will be launched on a Delta rocket from Complex 17 at Cape Canaveral Air Force Station. Three launch windows are available on February 25. These are: 6:49 to 7:31 p.m. ; 7:45 to 8:15 p.m., and from 8:30 to 9:32 p.m. All times are Eastern Standard.

On launch day, media personnel with permanent credentials may proceed to Press Site 1 on CCAFS via Gate 1 beginning at 5:15 p.m. Others will be badged at the Gate 1 Pass and Identification Building on Florida Route 401 from 5:15 to 6 p.m.

Both the pre-launch news conference and launch day commentary may be monitored at the appropriate times by calling the KSC Operator at Area Code 305-867-2468 and asking to be plugged into the V-2 Circuit.

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February 16, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

K

For Release:

Release No. 33-82

Immediate

Mark Hess Area Code 305 867-2468

NOTICE TO EDITORS/NEWS DIRECTORS:

PRIME CREW TO REHEARSE LAUNCH DAY ACTIVITIES FEBRUARY 19

KENNEDY SPACE CENTER, Fla.--The prime crew members for the Space Shuttle's third mission, Commander Jack Lousma and Pilot Gordon Fullerton, will participate in a simulated countdown and liftoff February 19.

The simulated liftoff, scheduled for 10 a.m. Friday, will be the culmination of a two-day rehearsal called the dry Countdown Demonstration Test, designed to simulate as closely as possible the final 33 hours of a shuttle launch countdown.

Astronauts Lousma and Fullerton will follow the same timeline they will duplicate on the scheduled March 22 launch date for the Space Shuttle's third mission.

After an early morning breakfast, the crew will don their pressurized flight suits and be transported to Pad A of Complex 39 in the Astronaut Van. The crew will enter the Columbia during a 1-hour hold at T-2 hours and 5 minutes and participate in the final two hours of the countdown test from Columbia's cockpit.

Other holds will occur at the same times in this test as in the actual launch countdown. They are for 10 minutes at the T-20 minute mark and for 10 minutes at the T-9 minute mark.

The hold at T-9 minutes is the last hold before the countdown is taken over automatically by the Ground Launch Sequencer. This computer-controlled program monitors more than 1,000 different measurements during the final nine minutes of the countdown. It is designed to automatically call a halt to the countdown if any one of those measurements are out of pre-determined margins.

The Shuttle's large external propellant tank is not filled during the Dry Countdown Demonstration Test.

A separate test is scheduled for February 26 during which super cold liquid oxygen and hydrogen will be put inside the 154-foot-tall propellant tank. The astronauts do not participate in the propellant loading exercise.

- more -

Logistics for Press Coverage of CDDT-related Activities:

There will be several photo opportunities of STS-3 prime crew members Lousma and Fullerton during the two-day dry countdown demonstration test.

On February 18, from 7 a.m. until 9:30 a.m., the prime crew will be flying the Shuttle Training Aircraft at KSC's Shuttle Landing Facility. News media will have the opportunity to photograph the crew boarding the modified Gulfstream jets and making landing approaches to the 15,000-foot long runway.

Press representatives who wish to cover the STA flights should be at Press Site 39 no later than 6 a.m. on February 18. Transportation will be provided.

On February 19, the day of the simulated countdown and liftoff, news media representatives will have an opportunity to photograph the flight crew leaving the Operations and Checkout Building or arriving at the launch pad. Press representatives who wish to cover either the arrival or departure should be at the Press Site no later than 7 a.m.

At the conclusion of the dry countdown demonstration test and a briefing on emergency escape equipment at the pad, the astronauts will meet briefly with the news media at a camera mound on the perimeter of the launch pad for a question and answer and photographic session. The press briefing should be about 12:45 p.m. News media planning to attend should be at the Press Site no later than 11:45 a.m.

Media representatives with permanent credentials may drive directly to the Complex 39 Press Site from where coverage of the various activities will be staged. Those without must call the News Center at Area Code 305-867-2468 to make the necessary badging arrangements.

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February 16, 1982

NASA News

IF.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Release No. 37-82
Mark Hess Area Code 305 867-2468

February 24, 1982

Propellants To Be Loaded in External Tank February 26

KENNEDY SPACE CENTER, Fla.--The Space Shuttle's external tank is scheduled to be filled with liquid hydrogen and liquid oxygen propellants on Friday, February 26, as part of a test designed to check the integrity of the external tank's exterior insulation and check out shuttle systems under super cold conditions.

More than half a million gallons of liquid oxygen and liquid hydrogen, the propellants burned by the orbiter Columbia's three main engines, will be put inside the massive 154-foot tall external tank. The launch team will duplicate the manner in which propellants will be loaded into the tank for the third Space Shuttle flight, scheduled for launch on March 22.

The test is rated at a hazardous operation and Playalinda Beach at Canaveral National Seashore - north of the launch pad - will be closed to the public from 6 p.m. on Thursday until 6:30 a.m. on Saturday. If the test is delayed or extended, the beach will be reopened at 6:30 a.m. the morning following the completion of the test.

The shuttle launch team will perform other important checks during the cryogenic loading test, including a seven-minute retest of the No. 1 Auxiliary Power Unit that was replaced between shuttle flights 2 and 3, and a fuel cell activation test.

The propellant loading exercise will include a terminal countdown to a simulated firing of the Space Shuttle main engines. The T-0 is scheduled for 2 p.m. Friday. The flight crew for the STS-3 mission will not participate in this test.

This test will be different from an actual shuttle launch countdown. There will be four built-in-holds during the terminal countdown, rather than the three holds usually planned. Some of the holds will occur at the same times in this test as they occur in the actual launch countdown.

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The first hold will be for two hours at the T-2 hour and 5 minute mark. During this hold, an ice inspection team will go to the pad and inspect the external tank. Engineers will also activate the orbiter's three electricity-producing fuel cells during this 2-hour hold, and test the fuel cells' ability to share the power demands of the Space Shuttle.

The ice team will climb to various levels of the Fixed Service Structure inspecting the tank from top to bottom for frost and ice on the tank's outer skin. Without the inch-thick layer of spray-on insulation on the outside of the tank, frost and ice would form on the tank because of the extremely cold temperatures of the liquid propellants that are inside. Liquid hydrogen is kept at -423 degrees F, and oxygen must be below -297 degrees F to maintain its liquid state.

The team inspects the tank to make sure there are no heavy deposits of ice or frost that could fall off during liftoff and hit the orbiter's fragile heat-protective tiles. On launch day, this team, composed of experts from Kennedy Space Center, NASA's Marshall Space Flight Center in Huntsville, Alabama, and Martin Marietta, the prime contractor on the tank, will give the launch director an assessment of the tank's condition. Their report is a key factor in determining the Space Shuttle's readiness for launch.

A second 10 minute built-in-hold will occur at T-20 minutes, and a third hold will come at T-9 minutes and will also last for 10 minutes.

Coming out of the hold at T-9 minutes, the Ground Launch Sequencer will automatically take over control of the countdown. The Ground Launch Sequencer monitors more than 1,000 measurements during the final nine minutes of the countdown. The automatic sequencer is designed to stop the countdown if any of those measurements fall outside of pre-determined margins.

Another important part of this test is to verify that shuttle components, under the stress of extremely cold temperatures, are still functioning within the limits monitored by the Ground Launch Sequencer.

At T-31 seconds, the point just before the ground computers transfer control of the countdown over to the orbiter's on-board computers, the countdown will be stopped a final time for a planned hold of 13 minutes. During this hold, a special "drainback" test will be conducted.

With the external tank at the 100 percent level, engineers will drain a certain amount of the liquid propellants and measure how long it takes. Data obtained from this "drainback" test, will accurately tell engineers exactly how much propellant is in the tank when it is full.

At T-0, or simulated ignition of the three orbiter main engines, the No. 1 Auxiliary Power Unit will be turned on for seven minutes to make sure it operates properly. The orbiter has three APUs to provide the hydraulic power needed to move the engine nozzles and flight control surfaces.

After the simulated ignition and subsequent cutoff, the propellants will be drained out of the external tank back into the large insulated spheres at the launch pad. A detailed inspection will then be made of the tank to make sure there is no delamination of its exterior insulation.

A brief chronology of the test, officially called the Main Propulsion System Cryogenic Load, goes as follows:

The test is scheduled to pick up at the T-20 hour mark at 1 p.m. on Thursday, February 25. The Rotating Service Structure will be moved to the launch position, back away from the shuttle vehicle, at T-13 hours at 7 p.m. on Thursday, followed by a four hour built-in-hold at T-8 hours. Loading of the propellants is scheduled to begin at the T-5 hour mark at 7:47 a.m. Friday, February 26. The ice inspection team will perform their inspection beginning at 10:42 a.m. during the two-hour hold at T-2 hours and 5 minutes, leading down to a T-0 at 2 p.m.

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19
K

Steve Newborn
Area Code 305-867-2468
KSC RELEASE NO. 36-82

For Release:
Immediate

TITUSVILLE FIRM AWARDED SPACEPORT MODIFICATION CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a construction contract to Holloway Corp., located on Route 2 in Titusville, Fla. The contract calls for modifications to be undertaken in the Space Shuttle main engine and solid rocket booster operational areas at the space center. The rocket boosters provide the main thrust to help propel NASA's Space Shuttle into orbit.

The fixed-price contract has a price tag of \$168,200, and is to be carried out in two separate tasks. The first part of the contract is to be completed four months after a notice to proceed is issued, and the second part three months after a notice has been issued. The contract, which was awarded on Feb. 16, 1982, is one that has been set aside for award to a small business firm. Holloway submitted the low bid out of five proposals received by KSC.

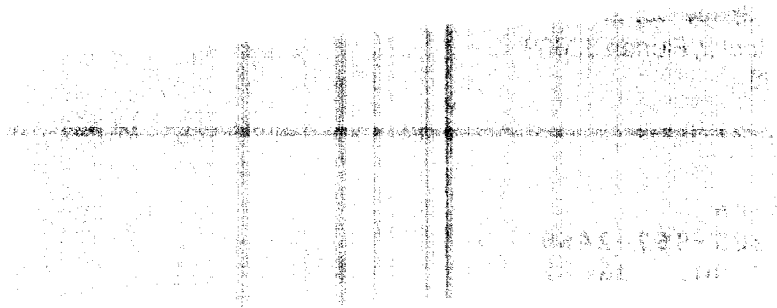
The first part of the contract calls for modifications to be made to the solid rocket booster facilities in Low Bay No. 1 of the voluminous Vehicle Assembly Building, where the rocket stages are assembled before they are mated with the Space Shuttle external tank. Holloway is to supply and install air conditioning and power receptacles to support electronic equipment used to checkout the SRB's, and enclose a supporting tower in the VAB with a steel structure so a computer terminal room can be constructed there at a later date.

The second part calls for a 10-ton crane to be moved to the Space Shuttle main engine shop in the VAB from the Hypergol Maintenance Facility, where the orbiter's onboard propulsion systems are refurbished. The 27 ft. wide crane will be widened to fit the 49 ft. wide space in the main engine shop after it is moved.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The Columbia is now on Launch Pad 39A and is being prepared for its unprecedented third flight into the heavens no earlier than March 22.

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Feb. 25, 1982



NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899

AC 305 867-2468

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1F.5 #19

For Release:

KSC Release No. 34-82

Dick Young - 305-867-2468

Immediate

NOTICE TO EDITORS/NEWS DIRECTORS:

INTELSAT V PRE-LAUNCH NEWS CONFERENCE SCHEDULED FOR MARCH 3

KENNEDY SPACE CENTER, Fla. - A pre-launch news conference on the Intelsat V mission scheduled for launch on March 4 will be held at 11 a.m. on Wednesday, March 3.

The news conference will be held in the conference room of the E&O Building at Cape Canaveral Air Force Station and news media representatives with permanent credentials may drive there directly via Gate 1 at CCAFS or KSC Gates 2 and 3 beginning at 10:30 a.m.

Those without permanent credentials must call the KSC News Center at Area Code 305/867-2468 to make arrangements for access. A caravan will leave the Complex 39 Press Site for the E&O Building at 10:30 a.m.

The Intelsat V (F4) spacecraft will be launched from NASA Launch Complex 36 at Cape Canaveral Air Force Station aboard an Atlas Centaur rocket. Three launch windows are available on March 4. These are: From 6:33 to 6:49 p.m., 7:23 to 7:41 p.m. and from 8:15 to 8:32 p.m.

The Intelsat V satellites are launched for the International Telecommunications Satellite Organization and placed in stationary orbits above the equator to provide communications links for its 106 member-owner nations.

On launch day permanently badged media personnel may drive directly to Press Site 1 on Cape Canaveral Air Force Station via Gate 1 at CCAFS beginning at 5 p.m. Others will be badged at the Pass and Identification Building at Gate 1 from 5 until 5:45 p.m.

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February 26, 1982

NASA News

IF.5 #19

V

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Steve Newborn
Area Code 305-867-2468
KSC RELEASE NO. 38-82

TITUSVILLE, FL. FIRM WINS MULTI-MILLION DOLLAR SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a \$3 million-plus services contract to Wiltech of Florida Corp., located at 3015 Briarwood Lane in Titusville, Fla. Wiltech is to take over the component refurbishment and chemical analysis services at the space center.

The cost-plus-award-fee contract carries a price tag of \$3,054,939, and covers the period from March 1, 1982, through Feb. 28, 1983. The contract is one that has been awarded to a small business firm.

Among the components that Wiltech will be responsible for are the valves and pumps that are located on the gaseous and liquid propellant lines that feed fuel used by NASA's Space Shuttle. The center's refurbishment facility, located beside the broad crawlerway that the Shuttle rolls upon during its slow journey to the launch pad, is where the propellant line's valve seats and pumps are brought for repairs. Wiltech will be responsible for inspection of these parts and will clean and replace, if necessary, any segments that are not in optimum working condition.

Wiltech will also take over KSC's chemical analysis service. Much of the chemical observation will be undertaken by the technique of gas chromatography, in which various liquids and gases are separated to determine if any impurities are present. Shuttle fuels such as hydrazine, used in the shuttle orbiter's onboard propulsion systems, go through this process.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The Columbia is now positioned at Launch Pad 39A and is being prepared for its third flight into Earth orbit no earlier than March 22.

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Feb. 26, 1982

NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

Dave Garrett
Area Code 202/755-3090

For Release: **March, 1982**
KSC 40-82

Dick Young
Area Code 305/867-2468

SPACE SHUTTLE PROGRAM COSTS

SPACE SHUTTLE DEVELOPMENT:

The original cost estimate in March, 1972, for Space Shuttle development was \$5.15 billion in 1971 dollars.

The current estimate for total shuttle development is \$10.083 billion in FY 1983 dollars, which equates to \$6.748 billion in 1971 dollars.

SHUTTLE ORBITER:

The current cost estimate for an orbiter - including engines and government furnished equipment such as the Remote Manipulator System, galley and closed circuit television - is approximately \$1.2 billion in FY 1983 dollars. This equates to approximately \$535 million in 1971 dollars. The original estimate for an orbiter was \$250 million in FY 1971 dollars, which was later revised to \$350 to \$400 million (FY 1971 dollars) based on the reduction in fleet from five to four orbiters and a schedule stretchout.

The original NASA estimated cost for the Orbiter 102 thermal protection system (TPS) was approximately \$200 million, which included development, manufacturing and installation. The current estimated cost for Orbiter 102 is \$315 million.

-more-

SHUTTLE PROPULSION:

The initial and current estimated total costs for the shuttle main engine, external tank and solid rocket booster (SRB) are as follows:

| | 1972 ESTIMATE* FY 1971 \$ | CURRENT ESTIMATE | |
|---------------|------------------------------|------------------|----------------|
| | | FY 1982 \$ | EQUIV FY 71 \$ |
| MAIN ENGINE | 580M | 1406M | 951M |
| EXTERNAL TANK | 331M | 637M | 411M |
| SRB | 390M | 582M | 376M |

*The original commitment for Shuttle design, development, testing, and evaluation of \$5.15 billion in FY 1971 dollars was at the total program level and not in terms of systems elements, i.e., engine, external tank and SRB. The cost breakdown to the element level has been adjusted to the FY 1972 work breakdown structure after completion of program definition.

PROGRAM COST:

The estimated total cost of the Shuttle program in FY 1983 dollars for development and production is as follows:

| | |
|--|----------------|
| <u>DDT&E</u> | 10.083 billion |
| <u>PRODUCTION</u> | 7.204 billion |
| Fleet investment (incl. 5th orbiter long lead) | 3.794 |
| Orbiter and KSC ground support equipment | .521 |
| Initial operational spares and equipment | 1.513 |
| Systems integration and support activities | 1.376 |

PREVIOUS MANNED PROGRAMS:

The initial and final cost estimates for completed manned space flight programs are as follows:

| | INITIAL DEVELOPMENT ESTIMATE | FINAL ESTIMATE |
|-------------------------------|------------------------------------|---------------------|
| | (\$ IN BILLIONS) | |
| MERCURY | NOT READILY AVAILABLE | .392 |
| GEMINI | 1.220 | 1.281 |
| APOLLO (MANNED LUNAR LANDING) | 20 to 40 ¹ | 21.349 ² |
| SKYLAB | 2.100 | 2.460 |

¹First detailed cost breakdown totaled \$19.5 billion.

²This estimate included approximately \$2 billion in hardware available for subsequent Apollo missions.

PRODUCTION COST OF FLIGHT HARDWARE:

Estimated costs of production flight hardware:

| | |
|------------------------------------|----------------------------------|
| Solid Rocket Motor/Booster Per Set | \$11.3 million (In 1981 dollars) |
| External Tank | \$10.1 million (In 1981 dollars) |

CURRENT SPACE SHUTTLE CONTRACTS:

Current Office of Space Transportation Systems Space Shuttle Contracts (in FY 1982 dollars) are as follows:

| | |
|---|-----------------|
| ROCKWELL (Shuttle Orbiter DDT&E) | \$3,560,000,000 |
| GRUMMAN (Rockwell subcontractor responsible for wings) | 45,000,000 |
| MCDONNELL DOUGLAS (Rockwell subcontractor responsible for OMS/RCS pods) | 85,000,000 |
| MCDONNELL DOUGLAS (support) | 52,000,000 |
| ROCKETDYNE (Shuttle main engines) | 1,546,000,000 |
| THIOKOL (solid rocket booster manufacture) | 206,000,000 |
| USBI (solid rocket booster assembly and retrieval) | 89,000,000 |
| MARTIN MARIETTA (external tank) | 529,000,000 |

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

V

Steve Newborn 305-867-2468
KSC NEWS RELEASE NO. 40-82

For Release
Immediate

PLAYALINDA BEACH TO CLOSE FOR SHUTTLE LAUNCH

KENNEDY SPACE CENTER, FLA.-Playalinda Beach, located on NASA property adjacent to the Space Shuttle launch pad, will be closed to the public in concurrence with the start of the launch countdown, scheduled for March 18, 1982.

The beach will be closed from 6 p.m. March 18 until the day after the Space Shuttle launch, or March 23 at 6:30 a.m., in the event that the Columbia is launched on March 22 as is currently scheduled. The March 22 launch window extends from 10 a.m. until 1:16 p.m. EST. If there is any slippage in launch, the beach opening and closing schedules will be slipped in parallel.

Anyone planning an excursion to Playalinda Beach on a day near a scheduled Space Shuttle launch should keep advised on beach status by calling Canaveral National Seashore to avoid being turned back at the gate. Sunbathers and surfers can call the seashore office at 867-4675 for the current status of the beach.

Badged Space Center employees who normally use the North gates on the Beach Road (Route 402/406) to drive to work from Titusville may do so until 8:30 a.m. the day of launch. The Beach Road from Titusville to State Route 3 South will remain open to badged employees until that time.

However, State Route 3 between the Haulover Canal and the Beach Road, and the Beach Road east of State Route 3 will be closed to all traffic starting at 3 p.m. on the day before launch (March 21) with the exception of essential personnel who are on a special access list. Badged employees who normally drive to work on the portion of State Route 3 between Haulover Canal and the Beach Road should use Route 402/406 near the eastern end of the Titusville causeway for access before 8:30 a.m. After 8:30 a.m., the outermost gate on Route 402/406 from Titusville will also be closed and all employees must enter through Gates 1, 2 or 3.

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March 8, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F, 5 # 19
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For Release:
Immediate

KSC Release No. 45-82
Dick Young - 305/867-2468

NOTICE TO EDITORS/NEWS DIRECTORS:

THIRD SHUTTLE MISSION STATUS BRIEFING SCHEDULED MARCH 10

KENNEDY SPACE CENTER, Fla. - A press briefing on the status of preparations for the launch of the third Space Shuttle mission will be held at the Complex 39 Press Site on Wednesday, March 10, at 12:30 p.m. EST.

Making the presentation will be George Page, KSC's Director of Shuttle Operations.

The briefing will be held in the auditorium of the Press Site's Audio Visual Center and news media representatives with permanent credentials may drive there via KSC Gate 2 on Florida Route 3 or KSC Gate 3 on the NASA Causeway from U. S. Route 1 two miles south of Titusville.

Media representatives without permanent credentials should contact the KSC News Center at 305/867-2468 to set up access badges.

Those unable to attend the briefing in person may monitor it by calling the KSC Operator at Area Code 305/867-7110 and asking to be connected with the V-2 Circuit.

The briefing will also be transmitted to NASA Headquarters, the Dryden Flight Research Facility, Johnson Space Center and Marshall Space Flight Center. There will be a two-way audio capability for questions and answers.

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March 8, 1982

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

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For Release:

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Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 49-82

COCOA FIRM TO INSTALL RAILROAD BOXCARS USED FOR SPACEPORT OFFICES

KENNEDY SPACE CENTER, Fla. - As part of a innovative cost-cutting move, NASA's John F. Kennedy Space Center has awarded Speegel Construction, Inc., of Cocoa, Fla., a contract to install 64 railroad boxcars that will be used for office space at KSC. The refrigerator carbodies, which have been procured from the Topeka, Kansas based Atchison Topeka & Santa Fe railway company, offer substantial advantages in price and durability over conventional trailers.

The fixed-price contract has a value of \$675,219, and is to be completed 140 days after the contract was awarded on Feb. 4, 1982. The contract is one that has been set aside for award to a small business firm. Speegel submitted the low bid out of six proposals received by KSC.

The contract calls for Speegel to install the boxcars and a restroom trailer at a site across from the Vehicle Assembly Building, where the various components of NASA's Space Shuttle are mated before being moved to the launch pad. By using boxcars instead of conventional trailers, NASA stands to save about \$1,000 on each car, for a total savings of roughly \$64,000. An added advantage is that the sturdy cars have a lifespan of 20 to 30 years, outlasting the five-year life of most trailers.

Approximately 600 NASA and contractor workers will be relocated in the boxcar offices. Speegel is to mount the cars on foundations and renovate the interiors with carpeting, paneling, drop ceilings and air conditioning units. The metal walls of the boxcars provide a thick insulation that will cut down on air conditioning costs, providing added savings.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The Columbia is now positioned at Launch Pad 39A and is being prepared for its unprecedented third flight into the heavens no earlier than March 22.

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March 12, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Steve Newborn
Area Code 305-867-2468

KSC RELEASE NO. 113-82

NOTE TO EDITORS/NEWS DIRECTORS:

INSAT 1A PRE-LAUNCH NEWS CONFERENCE SCHEDULED FOR APRIL 6

KENNEDY SPACE CENTER, Fla. - A pre-launch news conference on the Insat 1A mission scheduled for launch on April 8 will be held at 11 a.m. on Tuesday, April 6.

The news conference will be held in the conference room of the E&O Building at Cape Canaveral Air Force Station and news media representatives with permanent credentials may drive there directly via Gate 1 at CCAFS or KSC Gates 2 and 3 beginning at 10:30 a.m.

Those without permanent credentials must call the KSC News Center at Area Code 305-867-2468 to make arrangements for access. A caravan will leave the Complex 39 Press Site for the E&O Building at 10:30 a.m.

The Insat 1A spacecraft will be launched from Pad A of NASA's Launch Complex 17 at Cape Canaveral Air Force Station aboard a Delta rocket. The launch window for April 8 is extended from 1:48 a.m. to 2:48 a.m.

The Insat 1A spacecraft is being launched for India. The satellite will be placed in a stationary orbit above the equator to provide communications throughout the Indian subcontinent.

On launch morning permanently badged media personnel may drive directly to Press Site 1 on Cape Canaveral Air Force Station via Gate 1 at CCAFS beginning at midnight. Others will be badged at the Pass and Identification Building at Gate 1 from 12:30 a.m. until 1:15 a.m.

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March 25, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

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For Release:
Immediate

Steve Newborn
Area Code 305-867-2468
KSC RELEASE NO. 115-82

KSC LAUNCH TEAMS EXPECT A FULL SCHEDULE FOR REST OF 1982

KENNEDY SPACE CENTER, Fla. - The remainder of 1982 promises to be a busy time for launch teams at Kennedy Space Center. Six expendable vehicle launches are scheduled from May through December, 1982, and highlighting the year will be two flights of NASA's Space Shuttle, including the first operational flight of the world's first reusable spacecraft.

Of the six expendable vehicles to be launched, four will be powered by Delta rockets, and the other two by Atlas-Centaur boosters. One of the Deltas will be launched from KSC facilities at Vandenberg AFB in California, and the remainder from KSC's Cape Canaveral AFS facilities.

After a break for the month of May, the next June launch will be the June 8 launch of WESTAR-V, a Western Union communications satellite, powered by a Delta rocket.

The fourth flight of the Shuttle Orbiter Columbia (STS-4) is scheduled for launch from KSC in late June or early July. In the Shuttle Orbiter Columbia's cargo bay will be a Department of Defense payload and an experiments package that will include testing the formation of substances in a zero-gravity environment that could have potential medical and research applications. Commanding the seven-day mission will be Apollo 16 veteran Thomas K. Mattingly. In the Columbia's pilot's seat will be Henry W. Hartsfield, checking out his space legs for the first time.

July will have two launches, beginning with LANDSAT-D, an Earth resources satellite, on a Delta rocket from Vandenberg AFB on July 1. On July 9, INTELSAT V F-5 will be thrust into orbit by an Atlas-Centaur booster from the Cape. INTELSAT is being launched for the 106-nation International Telecommunications Organization.

August 12 will feature the launch of TELESAT-F, also called ANIK-D, aboard a Delta rocket. The communications satellite is being launched for Telesat Canada. After the TELESAT launch, the launch teams will get a break for the rest of August as well as September and October.

-more-

November will be highlighted by the scheduled launch of STS-5, which will initiate a number of firsts for the shuttle program. STS-5 will be the first operational flight of the Space Shuttle. It will also be the first planned landing of the orbiter on the three-mile long Shuttle Landing Facility at KSC. Carried in the Columbia's cargo bay for the first time will be two communications satellites: SBS-C, for Satellite Business Systems, and TELESAT-E, for Canada, and their boost stages. In the cockpit will be Commander Vance D. Brand, who piloted the Apollo command module which docked with an orbiting Soviet Soyuz spacecraft during the Apollo-Soyuz Test Project in 1975. In the pilot's seat during the five-day mission will be Robert F. Overmyer, and for the first time mission specialists, namely Dr. Joseph P. Allen and Dr. William B. Lenoir, will be onboard the shuttle.

Rounding out November will be the Nov. 18 launch of RCA-E, part of the RCA Satcom network, boosted by a Delta rocket.

1982's last scheduled launch will be INTELSAT V F-A on an Atlas-Centaur rocket on Dec. 9. This will be the last expendable vehicle launch from KSC's Cape Canaveral pads for almost three months.

The busy schedule for the KSC launch teams will be continued during the first quarter of 1983. The sixth flight of the Space Shuttle is planned for January 1983. It will be the first flight of the Shuttle Orbiter Challenger, the second in a planned fleet of four orbiters. NASA's Tracking and Data Relay Satellite and an Inertial Upper Stage used to propel it to a higher orbit will be deployed during the two-day mission. This will be part of an eventual two-satellite system that will provide a more comprehensive communications system between orbiting shuttles and the ground than the present system of worldwide ground tracking stations. The crew will be composed of Commander Paul J. Weitz, who flew on the first manned visit to the Skylab space station, Pilot Karol J. Bobko, and mission specialists Donald H. Peterson and Dr. Story Musgrave. Completing the January schedule is the launch of IRIS-D, a NASA scientific satellite, from Vandenberg AFB onboard a Delta.

Rounding out the launch schedule after a break in February will be RCA-F in March, powered into orbit by a Delta booster.

The communications satellite missions are classed as reimbursable missions, meaning that NASA will be paid for the cost of the launch vehicles and launch operations. Communications satellites are placed in stationary orbits at selected points 35,600 kilometers (22,250 miles) above the equator. Their orbital speed is synchronized with the Earth's rotation and they appear to hang or hover over their assigned duty stations.

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April 2, 1982

Expendable Launch Vehicle schedule

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
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AC 305 867-2468

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Steve Newborn
Area Code 305-867-2468

For Release:
Immediate

KSC RELEASE NO. 116-82

WACKENHUT SERVICES AWARDED MULTI-MILLION DOLLAR CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla. - Security and fire protection are among the essential tasks that Wackenhut Services, based in Coral Gables, Fla., performs at NASA's John F. Kennedy Space Center. A \$9.6 million supplemental contract recently awarded to the firm insures that they will continue to provide these fundamental services to the nation's spaceport.

The cost-plus-fixed-fee contract supplement carries a dollar value of \$9,628,389, bringing the total value of the Wackenhut contract at KSC to \$48,960,063. The supplement covers the period from when the contract was awarded on April 1, 1982, through October 31, 1982.

Providing security and protective services and fire prevention and protective services in the operational areas of the 140,000 acre space center keeps the employees of Wackenhut busy throughout the year. Wackenhut Services Inc., located at 3280 Ponce de Leon Blvd in Coral Gables, Fla., employs over 400 permanent and temporary workers at KSC. Wackenhut's fire service employs 106 firefighters, crash rescue workers and support and supervisory personnel, some of whom are based in the Fire Combat Unit, which utilizes protective SCAPE (Self Contained Atmospheric Protective Ensemble) suits to contain particularly intense blazes. The security service is composed of approximately 250 officers and support personnel, and the Consolidated Services Branch employs about 50 people. This branch handles joint communications between the security and fire services and handles alarm systems, supply and training for the two services. The Security and Fire Branches are based in separate stations in the Headquarters Building and adjacent to the huge Vehicle Assembly Building, where the components of NASA's Space Shuttle are assembled and readied for flight.

The Kennedy Space Center is NASA's primary launch and recovery site for the revolutionary Space Shuttle. The Orbiter Columbia is now undergoing preparations in its hangar for its fourth mission, tentatively scheduled for late June or early July.

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April 21, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:
Immediate

Mark Hess
AC 305 867-2468

KSC Release No. 118-82

NASA ADDS DUTIES TO IBM CONTRACT

KENNEDY SPACE CENTER, Fla.—NASA's John F. Kennedy Space Center has awarded \$1,558,420 contract modification to International Business Machines Corporation, 7900 North Astronaut Blvd., Cape Canaveral, Fla., for additional services under an existing contract.

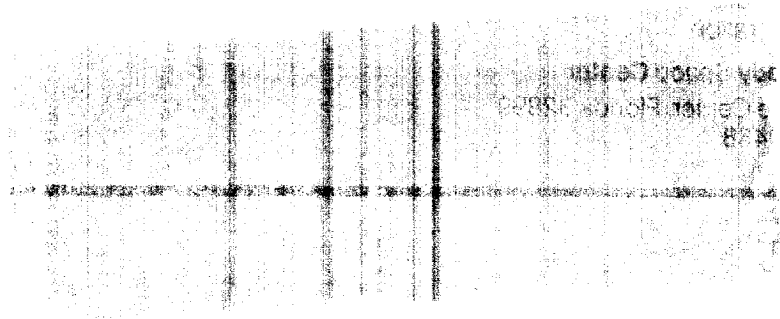
IMB is presently under a three-year contract extension with KSC for systems engineering and software development services in support of the Launch Processing System used at the Spaceport for automated checkout and launch of Space Shuttle vehicles. This award, for additional work under that existing contract, brings the total value of the contract to \$85,913,954.

The Cost-Plus-Award-Fee contract modification covers the period from January 19, 1982 through September 30, 1984.

Shuttle orbiter Columbia is currently in turn-around refurbishing at Kennedy Space Center for its fourth and final orbital test flight now scheduled for late June.

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April 30, 1982



NASA News

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For Release:

KSC Release No. 119-82
Mark Hess AC 305 867-2468

May 3, 1982

NOTICE TO EDITORS/NEWS DIRECTORS

SHOWING OF FIRST GETAWAY SPECIAL PAYLOAD SET FOR MAY 4

KENNEDY SPACE CENTER, Fla.—STS-4 will carry the first "Getaway Special" payload when it lifts off from Kennedy Space Center this summer. The experiments to be carried in the GAS container will be displayed for the press at 10 a.m. on Tuesday, May 4.

The GAS canister and its experiments will be displayed at Hangar S at Cape Canaveral Air Force Station and a number of officials connected with the project, including its sponsor R. Gilbert Moore, general manager of the Thiokol Astro-Met Plant, Ogden, Utah, the Goddard Space Flight Center and Kennedy Space Center will be on hand to discuss this first payload.

The Small, Self Contained Payload program, also called the "Getaway Special" program provides for small experiments to be flown in the Space Shuttle cargo bay in NASA-provided containers. They are available to industry, educational organizations and domestic and foreign governments for legitimate scientific purposes and more than 320 have been sold to date.

Moore donated the first "Getaway Special" to five educational institutions that include two universities and a college, and two high schools. The nine experiments provided by these institutions range from algae and duckweed growth in space to fruit fly and brine shrimp genetic studies. A GAS verification payload was flown on STS-3 to monitor conditions inside and outside the payload canister.

Media representatives should plan to arrive at the Complex 39 News Center no later than 9:30 a.m. on May 4. Those with permanent credentials may drive directly to the press site. Those without permanent credentials should contact the KSC News Center at Area Code 305/867-2468 and make the necessary clearance arrangements. This latter group should also plan to meet at the Complex 39 press site no later than 9:30 a.m. Transportation to Hangar S will be provided.

To help us in planning, we are requesting media representatives to notify us in advance if they intent to take in this press briefing.

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NASA News

IF.5 #19

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National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

Leslie Vock
Area Code 305-867-2468

For Release:
Immediate

KSC RELEASE NO.: 120-82

HAULOVER CANAL BRIDGE TO HAVE NEW HOURS OF OPERATION

KENNEDY SPACE CENTER, Fla. - Effective May 3, 1982, the Haulover Canal Bridge at the north end of KSC will be closed between the hours of 7 p.m. and 5 a.m., seven days a week.

Employees who usually enter KSC property from this north entrance are advised to use an alternate route. Route 402/406 near the eastern end of the Titusville causeway will continue to be accessible to badged employees 24 hours a day, except as otherwise announced.

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NASA News

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National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC RELEASE NO. 123-82
Leslie Vock
Area Code 305 867-2468

SMALL BUSINESSES RECEIVE 14% OF ANNUAL KSC CONTRACT AWARDS

KENNEDY SPACE CENTER, Fla. -- Kennedy Space Center is celebrating Small Business Week May 9 - 15 to recognize the tremendous contribution small business contractors make to its operations.

"We're helping build America," is the theme for this year's Small Business Week. Norm Perry, industry assistance officer and small business specialist at KSC, said, "Everything we do here is touched by small business; even the big prime contractors have to have the support of small business."

KSC awarded more than \$67 million in contracts to small businesses in fiscal year 1981, for 14.25 percent of total contract awards. "We need lots of small items done quickly, and small businesses are invaluable in providing that work," said Perry.

Small business support companies at KSC are Atlantic Technical Services, mail and distribution; BAMS1 (minority-owned), keypunch operations; Bionetics Corp., standards and calibration laboratory, support and environmental monitoring; Expedient Services, roads and grounds; McGregor & Werner, printing and reproduction; New World Services (woman-owned), library sciences; Custodial Services (minority-owned), and Wiltech of Fla., component refurbishment and chemical analysis.

The major local small business support companies are Holloway Corp., Titusville, for modifications to the Operations and Checkout Building; Ivey's Steel Erectors, Inc., Merritt Island, for modification to the Life Science Support Facility; Precision Fabrication & Cleaning, Sharpes, for refurbishment of the tube-bank trailers, and W & J Construction Corp. Cocoa, for modifications to Pad B, Launch Complex 39.

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May 4, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19



For Release:

Ken Senstad
Area Code 305/867-2468

KSC RELEASE NO. 124-82

May 11, 1982

NOTE TO EDITORS

News conferences with the STS-4 astronauts, lead flight director and science/payload officials will be held Thursday and Friday, May 20-21, in the Bldg. 2 News Center at NASA's Johnson Space Center, Houston.

The STS-4 flight crew will not be available to the media again until after the mission.

Sessions scheduled are:

THURSDAY, MAY 20

11 a.m. (all times EDT) — STS-4 flight plan briefing by
Charles R. Lewis, lead flight director.

2 p.m. — STS-4 Science Briefing

3 p.m. — Getaway Special and Student Experiments

4 p.m. — Public Affairs guidelines for STS-4 DOD payload.

FRIDAY, MAY 21

10 a.m. — News conference with STS-4 astronauts T. K. Mattingly
and Henry W. Hartsfield.

These news conferences will be available via two-way audio at the Kennedy Space Center Press Site auditorium for those news media who wish to participate in question and answer sessions. The news conferences will also be available on the NASA V-2 circuit which may be reached by calling Area Code 305 867-7110 and asking to be connected to the circuit.

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For Release:

Release No. 126-82

Mark Hess

305/867-2468

Immediate

NOTICE TO EDITORS/NEWS DIRECTORS

COLUMBIA SCHEDULED FOR MOVE TO VEHICLE ASSEMBLY BUILDING ON MAY 18

KENNEDY SPACE CENTER, Fla.—The Space Shuttle Orbiter Columbia is scheduled to be moved out of the processing hangar on May 18 and transferred to the Vehicle Assembly Building for mating with the other STS-4 shuttle elements.

A time for the move has not yet been established. However, officials estimate the move could begin about mid-day on Tuesday.

Columbia will be towed from the Orbiter Processing Facility to the massive 52-story assembly building where it will be raised into High Bay 3 and attached to the external tank and twin booster rockets already assembled on a Mobile Launcher Platform. The assembled STS-4 space vehicle will undergo about a week of integrated testing before it is moved to Pad A of Complex 39. STS-4 currently has a target launch date of no earlier than June 27.

News media who wish to cover the transfer and mate activity should be at the Complex 39 Press Site about one hour before the move is to begin. Since that time has not been established, media should keep in touch with the NASA News Center either by calling during regular business hours at Area Code 305/867-2468, or by calling the automatic telephone system at Area Code 305/453-7020.

Press who do not have permanent press badges will be badged at the Gate 2 Pass and Identification Building, located on Florida Route 3. The Pass and ID building will open two hours prior to the move. All permanently badged press may proceed directly to the Press Site via Gates 2 or Gate 3, located on State Road 405, two miles south of Titusville.

The KSC News Center will open on May 18 approximately three hours before the scheduled move time.

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May 14, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:

Leslie Vock
AC 305-867-2468

Immediate

KSC RELEASE NO: 130-82

KSC DIRECTOR TO BRIEF BREVARD COUNTY COMMUNITY LEADERS

KENNEDY SPACE CENTER, Fla. - Kennedy Space Center Director Richard Smith and TWA Services Vice President Harry Chambers will brief community leaders on May 20 about KSC's role in Brevard and the expansion of the Visitors Information Center.

The presentation will begin at 8:30 a.m. in Theatre 1, at the west end of the main building at the VIC. There will be a brief question and answer session for community leaders following the presentation.

News media representatives are invited to attend the briefing and join the group for coffee and pastries at 8 a.m. in the Carousel Cafeteria.

Members of the press are requested to hold all questions until after the community briefing and Q & A session. There will be opportunity to interview Smith and Chambers if prior arrangements are made with the Public Information Office.

Badges are not needed to attend this presentation and media representatives may drive directly to the Visitors Information Center.

For further information or to arrange an interview, please contact 867-2468.

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May 17, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

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For Release:

Release No. 128-82

Mark Hess

AC 305/867-2468

Immediate

COCOA FIRM WINS BID TO CONSTRUCT NEW SOLID BOOSTER PROCESSING FACILITY

KENNEDY SPACE CENTER, Fla.—NASA's John F. Kennedy Space Center has awarded a \$7.2 million contract to W & J Construction Company in Cocoa, Florida, to construct a complex of new buildings to process and store Solid Rocket Booster segments.

Under the terms of the fixed-price contract, W & J will provide the labor, equipment and materials to construct the Solid Rocket Booster Rotation/Processing Facility and two SRB Segment Storage Buildings. The award was made to a small business firm. Construction of the facilities is to take about 18 months.

Live solid motor segments arriving at Kennedy Space Center for assembly are now received, processed and inspected in the Vehicle Assembly Building. The aft skirts and aft propellant segments of the solid rocket boosters are also currently assembled in the VAB. Moving these operations to a separate building will reduce hazardous conditions in the VAB and speed shuttle turnaround time by eliminating scheduling conflicts between the hazardous solid rocket booster work, and non-hazardous work done in the VAB on the orbiter, external tank and assembled booster rockets.

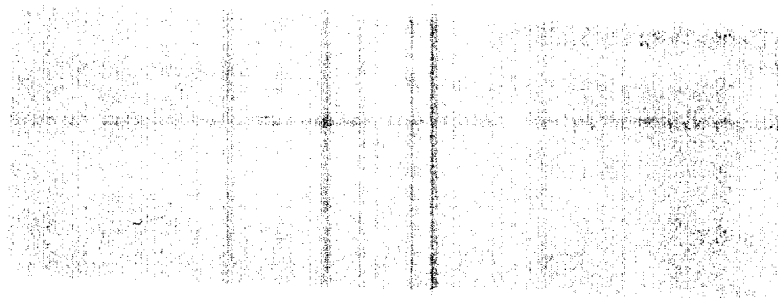
When complete, these facilities will enable KSC to store two sets of solid rocket boosters and to support more than 20 launches a year.

Each Space Shuttle mission uses two solid rocket boosters, each 150 feet tall and 12 feet in diameter. Their combined thrust of more than 6 million pounds help lift the Space Shuttle off the launch pad. Each booster consists of four segments, loaded with a total of 1.1 million pounds of high-energy propellant and weighing about 160 tons each.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. Three development test flights of the reusable spaceship have been conducted. The final test flight before the shuttle moves into its operational era is scheduled for late June this year.

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May 18, 1982



NASA News

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National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Mark Hess
Area Code 305/867-2468

Immediate

RELEASE NO: 135-82

LONGWOOD FIRM RECEIVES EXTENSION ON CONTRACT FOR MAIL SERVICES

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded Atlantic Technical Services of Longwood, Fla., an extension valued at \$613,366 to its current contract for providing mail services for the Space Center.

ATS is responsible for the operation of the postal and in-house distribution services for the entire Space Center.

Classed as a small business firm, ATS is in its second year of providing mail and distribution services in support of NASA and contractor elements at the Kennedy Space Center. This extension will cover the period through October 31, 1982.

The new award brings the aggregate value of the parent contract to \$2,535,504.

The Kennedy Space Center is NASA's prime launch and recovery base for the reusable Space Shuttle vehicle. Integrated testing of the Space Shuttle vehicle that will make the fourth flight is currently underway at Kennedy Space Center. That mission has a target launch date of June 27.

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May 24, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

V

For Release:

Immediate

Mark Hess
Area Code 305/867-2468

RELEASE NO: 137-82

NOTE TO EDITORS/NEWS DIRECTORS:

WESTAR V PRE-LAUNCH NEWS CONFERENCE SCHEDULED FOR JUNE 7

KENNEDY SPACE CENTER, Fla.—A pre-launch press conference on the Westar V mission will be held at 11 a.m. on Monday, June 7.

Launch of the Westar V spacecraft aboard a Delta rocket is scheduled for Tuesday, June 8. The launch window on that date extends from 8:15 p.m. until 9:21 p.m. EDT.

The news conference will be held in the conference room of the E&O Building at Cape Canaveral Air Force Station. News media with permanent press credentials may drive directly to the conference by way of Gate 1 at CCAFS, or via KSC Gates 2 or 3 beginning at 10:30 a.m.

Those without permanent badges should call the KSC News Center at Area Code 305/867-2468 and make necessary arrangements for access. Transportation to the news conference will be provided, and will leave the Complex 39 Press Site at 10:30 a.m.

The fifth in a series of commercial communications satellite for Western Union, WESTAR V will be launched into a geosynchronous orbit over the equator. The spacecraft will relay voice, data, video and facsimile communications to the continental United States, Hawaii, Alaska, Puerto Rico and the Virgin Islands.

On launch day, permanently badged media personnel may drive directly to Press Site 1 on Cape Canaveral Air Force Station via Gate 1 beginning at 6:45 p.m. Others will be badged at the Gate 1 Pass and Identification Building from 6:45 until 7:15 p.m.

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May 24, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1F,5 #19 ✓
For Release:

Lisa Malone
AC 305 867-2468

Immediate

KSC RELEASE NO. 138-82

WATSON FIRM WINS CONTRACT TO PAVE PARKWAY

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded the Watson Paving, Inc. of Cocoa Beach, a \$348,568 contract to resurface the northbound lanes of Kennedy Parkway, Florida Route 3.

The paving will include the nine mile section of road between the intersections of Routes 3 and 405, near the Space Center's Industrial area, to Gate 4 south of Florida Road 402 (the beach road).

Work under the fixed price contract is underway and is due to be complete by August 10. The award for this contract is set aside for small business firms.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. Three developmental test flights of the Space Shuttle have been conducted. The final test flight of the shuttle before it moves into an operational phase is the above target date.

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May 24, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Lisa Malone
AC 305 867-2468

Immediate

KSC RELEASE NO. 139-82

IVEY'S STEEL FIRM WINS CONTRACT TO BUILD EMERGENCY EXIT

KENNEDY SPACE CENTER, Fla. - NASA'S John F. Kennedy Space Center has awarded Ivey's Steel Erectors, Inc. of Merritt Island, a \$118,755 contract to build additional emergency exits for the Vertical Processing Facility.

Ivey's will install exterior stairs at the upper four levels of the building to be used for emergency egress from workstand levels to ground level. The stairs will be built on the west exterior of the building.

This fixed price contract will begin the last week of May and the projected completion date is Sept. 3 1982. This is an award given to small business firms.

Kennedy Space Center is NASA'S prime launch and landing site for the Space Shuttle vehicle. Three developmental test flights of the Space Shuttle have been conducted. The final test flight of the Shuttle before it moves into an operational phase is targeted for June 27.

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May 25, 1982

NASA News

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National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Lisa Malone
AC 305 867-2468

Immediate

RELEASE NO: 140-82

COCOA FIRM TO INCREASE STORAGE SPACE IN VEHICLE ASSEMBLY BUILDING

KENNEDY SPACE CENTER, Fla. -- NASA'S John F. Kennedy Center has awarded Speegle Construction, Inc. of Cocoa, Florida a \$63,777 contract to increase storage space in the low bay of the Vehicle Assembly Building.

Speegle will also add supporting framework to existing storage racks. In addition to modifying the storage space, Speegle Inc. will alter the existing extinguisher piping and sprinkler system, and will install lighting fixtures beneath the decking being constructed.

This fixed price contract calls for the work to be finished by October 12, 1982. Actual construction will begin the end of July.

Kennedy Space Center is NASA'S prime launch and landing site for the Space Shuttle vehicle. Three developmental test flights of the Space Shuttle have been conducted. The final test flight of the shuttle before it moves into an operational phase is targeted for launch June 27.

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May 26, 1982

NASA News

1F.5 #19

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC NEWS RELEASE 141-82
Jim Ball
Area Code 305 867-2468

Immediate

GENERAL AVIATION PILOTS DISCOURAGED FROM KSC AIR SPACE

KENNEDY SPACE CENTER, Fla.--The skies in the vicinity of Kennedy Space Center will be filled with official mission aircraft during the upcoming Space Shuttle launch, and will be off-limits to general aviation pilots. The possibility of mid-air collisions and the other hazards associated with a Space Shuttle launch dictate that surrounding airspace be cleared.

All restricted areas associated with the space center will be activated for the launch, and flyers wishing to view the launch will be asked to stay well west of the Indian River. The areas immediately surrounding the space center are expected to be extremely congested with both controlled and uncontrolled air traffic. The more prudent pilot may wish to remain grounded during the launch rather than risk the chance of a collision or a violation from patrolling Federal Aviation Agency planes. Violations may result in sanctions against pilots including suspension or revocation of pilot privileges.

Pilots who find it absolutely necessary to be airborne on the morning of the launch are advised to avoid the low to medium altitudes, stay as far west of the Indian River as possible and seek traffic advisories from the Patrick Air Force Base ATIS (UHF 273.50) or Melbourne FSS on discrete frequencies VHF 122.6 or 123.6, or UHF 255.4.

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October 29, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Roland Raab
AC 305 867-2468

For Release:
Immediate

KSC RELEASE NO. 151-82

VIRGINIA FIRM WINS EXTENSION TO SPACE CENTER CONTRACT

KENNEDY SPACE CENTER, Fla. -- The Applied Technology Division of Computer Sciences Corporation has won an extension to its current contract to provide communications and instrumentation support services to the National Aeronautics and Space Administration.

The contract extension is valued at \$30,765,993, bringing the total value of the company's contract with NASA to \$186,132,473. Under the contract, the company provides communications and instrumentation support such as operation and maintenance of the checkout, control and monitor subsystems within the Space Shuttle ground launch processing system, and provides computer operations and maintenance support for a variety of functional offices.

The company, headquartered at 6565 Arlington Blvd, Falls Church, Virginia, performs its operations at several locations, including Cape Canaveral Air Force Station and Patrick Air Force Base, Florida, Johnson Space Center, Texas, and the Dryden Flight Research Facility (NASA) and Vandenberg AFB, California.

The cost plus award fee contract extension covers the period from June 1 through December 31, 1982, with a cost plus fixed fee option to extend until February 28, 1983.

The Kennedy Space Center is the primary launch and landing site for the reusable Space Shuttle, now completing its four mission developmental flight series. When operational, the Space Shuttle will provide routine and economical access to and from space for a variety of commercial, government and defense users.

June 16, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

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For Release:

KSC RELEASE NO. 154-82
Dick Young - 305/867-2468

NOTICE TO EDITORS/NEWS DIRECTORS:

Immediate

LANDSAT D LAUNCH BRIEFING SET FOR JUNE 21

KENNEDY SPACE CENTER, Fla. - A news conference on the upcoming mission of the Landsat D spacecraft to be held at the Goddard Space Flight Center in Greenbelt, Md., at 9 a.m. EDT on Monday, June 21, may be monitored at KSC.

Landsat D, latest in a series of surveillance satellites designed to survey and monitor the earth's resources, will be launched by NASA from the Western Space and Missile Center, Vandenberg AFB, Calif., at 1:59 p.m. EDT on July 9.

News conference participants will include:

Jesse W. Moore, Director of Earth and Planetary Exploration Division, NASA Headquarters.

Jon Busse, Landsat Project Manager, Goddard Space Flight Center.

Ted Aepli, General Electric Co.

C. Richard Jones, Hughes Aircraft Co.

Lewis Sprott, Fairchild Space and Electronics Co.

David Grimes, Delta Project Manager, Goddard SFC.

Jack Ganoung, McDonnell Douglas Co.

Dr. Vincent Salomonson, Project Science, Goddard SFC.

Russell Koffler, National Oceanic and Atmospheric Administration.

Area news media may participate in the conference which will be piped into the Audio Visual Facility at the Complex 39 Press Site. Format of the conference will be two-way audio with a question and answer capability. There will be no video.

Media representatives unable to participate at the Complex 39 Press Site may monitor the conference by calling the KSC Operator at Area Code 305-867-7110 and asking to be connected with the V-2 Circuit.

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June 16, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Lisa Malone
Area Code 305-867-2468

July 1, 1982

KSC RELEASE NO. 164-82

KAMAG/PRECISION FABRICATING AND CLEANING, INC. WINS MULTI-MILLION
DOLLAR CONTRACT FOR TRANSPORTER SYSTEM

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a joint venture contract to KAMAG Transporttechnik GmbH and Co. of Ulm/Donau, West Germany and Precision Fabricating and Cleaning, Inc. of Sharpes, Florida, to provide transporter units for Space Shuttle launch preparations.

The contract has a basic value of \$2,883,548 and is for the construction, testing and delivery of two self-propelled transporter systems in support of Space Shuttle operations at KSC and Vandenberg Air Force Base, California. An option for a third such transporter may also be exercised.

One transporter to be constructed for KSC will transport Solid Rocket Motor segments from the storage and assembly area to the Vehicle Assembly Building, and will also be used to transport the payload canister loaded with Space Transportation System payloads and payload subsystem modules from the payload processing facilities to the Orbiter processing and launch facilities.

The transporter destined for use at Vandenberg AFB would be used to transport solid rocket motor segments and assemblies from an assembly area to the launch pad at that location. The optional transporter would be used solely for solid rocket motor segments at KSC.

If the optional transporter is purchased, the total value of the contract will become \$4,203,409. The fixed priced contract is scheduled to begin June 30, 1982 and will be completed January 30, 1984.

Kennedy Space Center is NASA'S prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle, now entering its operational phase, is a revolutionary vehicle designed to provide routine and economical access to and from space for a variety of commercial, research and government users.

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

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For Release:

Lisa Malone
Area Code 305-867-2468

Immediate

KSC RELEASE NO. 169-82

TITUSVILLE FIRM WINS CONTRACT TO MODIFY THE LAUNCH CONTROL CENTER

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded the Holloway Corporation of Titusville, Fla., a contract to modify the Launch Control Center to accommodate a data management system for the Space Transportation System.

Work under the fixed price contract, valued at \$320,707, began June 28 and is to be completed by November 1, 1982. The contract was one set aside for award to a small business firm.

Holloway Corp. is providing labor, equipment and materials for modifications to install walls, air dams, doors, power conditioners, and additions to the existing fire extinguishing system.

These alterations and additions will accommodate the Kennedy Data Management System which is a management computer responsible for processing operations management information required for shuttle test and maintenance.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle has now completed its fourth test mission and development phase and is moving into its operational phase. The Space Shuttle is a revolutionary vehicle designed to provide routine and economical access to and from space for a variety of research and government users.

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July 7, 1982

NASA News

1F.5 #19

K

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Roland Raab
AC 305 867-2468

Immediate

KSC Release No. 167-82

NOTICE TO EDITORS/NEWS DIRECTORS

LANDSAT LAUNCH MAY BE COVERED FROM KSC

KENNEDY SPACE CENTER, Fla. — The launch of LANDSAT D, scheduled for launch from NASA facilities at Vandenberg AFB, California not earlier than July 16, may be covered by accredited reporters from the KSC Press Site.

The launch is set for 1:59 pm EDT, with a window extending until 2:09 EDT on July 16. Kennedy Space Center will carry the launch via live video and audio in the Complex 39 Press Site Conference Room, beginning about an hour before launch. The post-launch news conference will be carried via two-way audio so that reporters at KSC may ask questions. Reporters should call the KSC Public Affairs Office at 867-2468 in advance to confirm the launch schedule.

Boosted by a NASA Delta 3920 vehicle, LANDSAT D is scheduled to be placed into a 438-mile circular orbit with a near polar inclination from which its instruments will be able to view virtually any point on earth at intervals of 16 days. The 4,273 pound spacecraft is the fourth in the LANDSAT series, the first three of which were considered to be developmental.

The spacecraft is designed to produce multispectral images of the earth's surface for crop surveys, pollution control, resources mapping, climatological monitoring and other uses. Once in orbit and checked out, the satellite will be turned over to the National Oceanic and Atmospheric Administration for operational management.

July 8, 1982

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Dick Young
Area Code 305/867-2468

KSC RELEASE NO. 171-82

ROBERT G. LONG APPOINTED DIRECTOR OF CENTER SUPPORT OPERATIONS

KENNEDY SPACE CENTER, Fla. - Kennedy Space Director Richard G. Smith has announced the appointment of Robert G. Long to serve as KSC's director of center support operations.

Long succeeds William M. Lohse, who is retiring effective today after 40 years of distinguished federal service.

Long, who has served as Lohse's deputy since May, 1980, began his federal career with the U. S. Army's Corps of Engineers at Charlotte, N. C., in January, 1955. He joined NASA at what is now the Kennedy Space Center in June, 1962, and served in a number of major managerial positions during the Apollo and Skylab program era and the build-up for the Space Shuttle program that followed.

He was appointed director of administrative operations and support services in January, 1976, remaining in that capacity until he became deputy director of center support operations in May, 1980.

Long was born in Charlotte, N. C., and attended public schools there. He was graduated from Virginia Military Institute with a bachelor of science degree in civil engineering in 1952, and served for two years as an engineering officer in the U S. Air Force.

Long and his wife, Natalie, live on south Merritt Island.

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July 9, 1982

NASA News

1F.5 #19

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Dick Young
305/867-2468

KSC RELEASE NO. 173-82

SPACE SHUTTLE ORBITERS NAMED AFTER SEA RESEARCH VESSELS

KENNEDY SPACE CENTER, Fla. - NASA has been authorized four Space Shuttle orbiters with which to establish a space transportation system. In keeping with their pioneering mission, all have been named after sea vessels used in world exploration.

The first - the Columbia - has already carved out a niche for itself in the history books by successfully completing a four-mission flight test program designed to qualify the system for routine operations.

The Columbia was flown by four two-man crews during the STS-1, 2, 3 and 4 missions and logged a cumulative total of 19 days, 13 hours, 48 minutes and 43 seconds of flight time. It is now being prepared for the first operational mission - STS-5 - which is scheduled for launch in late October or early November of this year.

The Columbia was named after the Boston-based sloop which entered and explored the mouth of the Columbia River in 1792. The vessel's skipper, Capt. Robert Gray, gave its name to the river. Columbia was also the name of the first U. S. Navy ship to circumnavigate the globe and of the command module for Apollo 11, the first lunar landing mission.

The orbiter Challenger was ferried to KSC aboard the 747 Shuttle Carrier Aircraft on July 5 of this year and was immediately moved into the Orbiter Processing Facility to begin checkout for its first flight on the STS-6 mission, scheduled for launch in January, 1983.

The Challenger is named after an American research vessel that made extensive oceanographic cruises over vast expanses of the Atlantic and Pacific Oceans during the 1870s. The name Challenger was also borne by the Apollo 17 lunar module that carried the last American crew down to the surface of the Moon in December, 1972.

- more -

The third orbiter in the series - Discovery - is scheduled for delivery to NASA in late 1983. This orbiter was named after the British ship commanded by Capt. James Cook which made voyages of discovery in the Pacific Ocean in the 1770s. Among its discoveries was the Hawaiian Islands.

The name was also carried in the early 1600s by a British ship used to explore Canada's Hudson Bay region and search for a northwest passage from the Atlantic to the Pacific.

The fourth orbiter now authorized - Atlantis - is to be delivered to NASA in late 1984 and was named after the first United States-operated vessel designed especially for oceanic research. The ship had a home port at the United States oceanographic research facility at Woods Hole, Mass.

Another orbiter - not designed for flight space - was flown in drop tests from the 747 Shuttle Carrier Aircraft in 1977 and 1978 at the Dryden Flight Research Facility in California. This orbiter was named Enterprise after the flagship in the popular television series "Star Trek." Enterprise was also a sailing ship which took part in an important Arctic expedition between 1851 and 1854.

Following the California drop tests - which were designed to explore the aerodynamic characteristics of the orbiters in the Earth's atmosphere - the Enterprise was used for vibration testing at the Marshall Space Flight Center in Huntsville, Ala., and the fit-testing of checkout and launch facilities at the Kennedy Space Center.

It is now at the Dryden Flight Research Facility in California and may be used to fit-test the Space Shuttle launch facilities now being constructed for polar orbit missions at Vandenberg Air Force Base, California.

All orbiters also bear more prosaic numerical designations. These are: Enterprise, Orbiter 101; Columbia, Orbiter 102; Challenger, Orbiter 099; Discovery, Orbiter 103, and Atlantis, Orbiter 104.

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July 14, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

K

For Release:

Immediate

Dick Young
Area Code 305/867-2468

KSC RELEASE NO. 176-82

NOTICE TO EDITORS/NEWS DIRECTORS

TELESAT-F SPACECRAFT DISPLAY, BRIEFING, SET FOR JULY 23

KENNEDY SPACE CENTER, Fla. - A display of the Canadian Telesat-F communications satellite scheduled for launch no earlier than August 12 will be held in Hangar AE at Cape Canaveral Air Force Station on Friday, July 23.

Telesat-F is scheduled for launch by KSC's Expendable Vehicles Directorate aboard a Delta rocket on August 12 during a window extending from 6:57 to 7:21 p.m. EDT.

The spacecraft display and briefing on its mission by project officials will be held in Hangar AE at 11 a.m. on July 23.

News media representatives with permanent credentials may drive directly to Hangar AE via Gate 1 at Cape Canaveral Air Force Station beginning at 10:30 a.m.

A caravan bearing other media representatives will leave the Complex 39 Press Site at 10:30 a.m. Media representatives with permanent credentials may drive directly to the Press Site. Those without should contact the KSC News Center at Area Code 305/867-2468 to make the necessary arrangements for access.

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July 14, 1982

NASA News

1F.5 #19

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Lisa Malone
Area Code 305-867-2468

Immediate

KSC RELEASE NO. 172-82

BOEING SERVICES INTERNATIONAL AWARDED CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded Boeing Services International, Inc. of Kennedy Space Center, Fla., a one-year, \$11,752,020 extension of its contract to provide supply and transportation services to KSC.

This extension will mark the fifth consecutive year that Boeing has provided such services to KSC. The basic contract went into effect in July, 1978. The services include shipping, repair, supply and distribution of manufactured items. The extension brings the cumulative contract value to \$53,228,250.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle has now completed its fourth test mission and is moving into its operational phase. The Space Shuttle is a revolutionary vehicle designed to provide routine and economical access to and from space for a variety of commercial, scientific and government users.

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July 16, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Mark Hess
Area Code 305/867-2468

KSC RELEASE NO: 175-82

NASA EXTENDS BOEING GROUND SERVICES CONTRACT

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded Boeing Services International, Inc., Kennedy Space Center, Fla., a supplemental agreement valued at \$46,833,660 to an existing contract. The award provides for Boeing to perform Ground Support Operations services for a sixth contract year at the Space Center.

The contract modification covers a one-year period from July 1, 1982 to July 30, 1983. This agreement brings the total value of the cost plus fixed fee contract to \$308,932,101.

Under terms of the contract, Boeing will continue to supply Ground Support Operations at the Space Center. These services include operating and maintaining the Crawler-Transporters used to carry Space Shuttle vehicles from the assembly building to the launch site. Boeing, under this contract, will also operate and maintain other ground support equipment such as the mobile launcher platforms and pad structures, service heating and air conditioning equipment, operate various technical shops and receive, store and transfer rocket propellants and other activities crucial to Space Shuttle operations.

Kennedy Space Center, NASA's prime launch and recovery site for the reusable Space Shuttle vehicle, is currently processing two orbiters: Columbia, scheduled to make the first operational flight of the Space Transportation System in the fall of this year, and Challenger, NASA's newest orbiter spacecraft set for launch on its first mission in January 1983.

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July 16, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

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IF.5 #19

K

David Garrett
Headquarters, Washington, D.C.
(Phone: 202/755-8370)

For Release:

IMMEDIATE

Mark Hess
Kennedy Space Center, Fla.
(Phone: 305/867-2468)

RELEASE NO: 177-82

FIRST OPERATIONAL FLIGHT OF SPACE SHUTTLE SCHEDULED

The flight of the first operational Space Shuttle mission, STS-5, is currently scheduled for launch from the Kennedy Space Center, Fla., on Nov. 11, 1982.

The fifth flight of Columbia will carry a crew of four: Vance Brand, commander; Robert Overmyer, pilot; and Joseph Allen and William Lenoir, mission specialist.

Two commercial satellites will be deployed during the planned five day mission. They are the Satellite Business System SBS-C, a commercial communication satellite, and Telesat-E, a domestic Canadian communication satellite.

July 16, 1982

-more-

Shuttle program officials evaluated the option of advancing the launch date of the first operational mission and concluded that while this advancement is possible from the Shuttle systems capability standpoint, there are other overriding advantages for maintaining the previously planned launch date, Nov. 11.

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M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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1E5 #19 14
For Release:

Mark Hess

Area Code 305/867-2468

KSC RELEASE NO. 180-82

NOTICE TO EDITORS/NEWS DIRECTORS:

LOOK AT COLUMBIA AND STS-5 PAYLOAD SET FOR AUGUST 12

KENNEDY SPACE CENTER, Fla.--A tour of the Orbiter Processing Facility to see the orbiter Columbia being readied for its next mission, and a look at the two commercial satellites Columbia will haul into space on STS-5, will be conducted on August 12, 1982.

Officials will brief news media on work being done on the reusable spaceship in preparation for its first "operational" flight, now scheduled for launch on November 11, 1982. The OPF tour will begin at 10 a.m.

Spacecraft officials will be on hand to discuss the SBS-C and TELESAT-E (Anik-C) commercial communications satellites, currently undergoing pre-flight checkout at Hangar AM on Cape Canaveral Air Force Station. Briefings on the two STS-5 payloads will be conducted at Hangar AM starting at 1 p.m.

Media representatives with permanent credentials may drive directly to the Complex 39 Press Site. Those without permanent credentials should contact the KSC News Center at 305/867-2468 to make the necessary clearance arrangements.

News media planning to attend the OPF tour should be at the Press Site no later than 9:45 a.m. News media interested only in the satellite viewing should be at the Press Site by 12:30 p.m. Transportation will be provided to both locations.

To help us in planning, we are requesting media representatives to notify us in advance if they intend to take in either of these press briefings.

* * *

August 2, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

14

Mark Hess
Area Code 305/867-2468

For Release:
Immediate

RELEASE NO: 181-82

COLUMBIA MODIFICATIONS GEARED FOR FIRST OPERATIONAL FLIGHT

KENNEDY SPACE CENTER, Fla.--Columbia will enter a new era of space exploration with its fifth mission, the first operational flight of the nation's Space Transportation System.

Columbia's first duty as an operational spacecraft will be to deliver two communications satellites into orbit when it blasts off from Complex 39-A this November, setting the stage for routine transport of commercial cargoes into space for a variety of customers.

Columbia's cargo on STS-5 will include the third in a series of business communications satellites for Satellite Business Systems, and Telesat-E, a domestic communications satellite for Canada.

-more-

August 2, 1982

To prepare Columbia for that task, Kennedy Space Center Shuttle Project Engineer Robert Sieck explained that several changes to the spaceship will be made during the eight weeks it will spend in the Orbiter Processing Facility at KSC in Florida.

According to Sieck, those changes will be geared to the transition Columbia will make with its fifth flight, from a development vehicle, into a spacecraft designed for operational use.

"Perhaps the biggest single difference will be the added crew accommodations," said Sieck. "We have four crewmembers on the fifth mission, instead of only two, and we have to add seats and other provisions for them, such as communications and emergency oxygen.

Besides the commander, Vance Brand, and pilot, Robert Overmyer, two mission specialists will fly on STS-5: Dr. Joseph Allen and Dr. William Lenoir. They will be responsible for the deployment of the communications satellites as well as the operation of other experiments carried aboard.

Sieck said one seat will be installed on the flight deck between and in back of the commander and pilot seats, and the other on the mid-deck. "They are foldable and will be tucked out of the way for the on-orbit portion of their mission."

Another change having to do with the seats will be the deactivation of the twin ejection seats for the commander and pilot. "Although the seats will remain in the crew module,

ordnance systems that activate the seats will be removed," he explained. "The seats will be taken out after STS-5 as part of the major modifications to Columbia to be done at Rockwell International's Palmdale facility in California."

Because STS-5 will be shorter than the last two shuttle missions, Sieck said that one set of oxygen and hydrogen tanks which feed reactants to the electricity producing fuel cells will be removed. He added this would result in a savings of about 1,300 pounds to the overall weight of the spaceship.

"As another weight and cost savings measure, the ablative panels on the orbiter's elevons will eventually be totally replaced with the reusable thermal protection tiles," he said. "About 80 tiles will be bonded in the positions of the ablator panels for this next mission. Replacing the ablator with tile will save about \$500,000 on each flight when that job is complete."

Other than changing ablator for tile, Sieck said much less work will be needed on the orbiter's thermal protection system than has been required following previous missions. Tiles damaged from the unexpected hail storm that pelted the orbiter the night before the STS-4 launch will be repaired in place. "There are 400 tiles that have been identified as subjects for densification," said Sieck. "Technicians will remove and densify tiles on an opportunity basis, but the STS-5 mission could be flown without densification of any tiles."

Another weight-savings enhancement will be the removal of the approximately 900-pound Remote Manipulator Arm. Sieck explained that development tests with the Candian-built mechanical arm are complete, and engineers are satisfied with the performance of the arm.

The arm is not needed on this particular flight. The two communication satellites will sit in their own cradle-like devices that have a spin-table and spring mechanism to first rotate the satellites to about 50 revolutions-per-minute, then pop the spacecraft into space at about 3 feet per second.

Columbia will be some distance away from the satellite when a pre-set 45 minute timer ignites the solid propellant Payload Assist Module used to push the spacecraft up to a geosynchronous altitude of about 22,300 miles above the Earth.

Another item to be removed, according to Sieck, will be the 800-pound Induced Environmental Contamination Monitor. The desk-sized monitor was used extensively on flights 2, 3 and 4 to check for contaminants in and around the orbiter's cargo bay that might adversely affect delicate experiments carried aboard.

Changes will also be made to Columbia's complex network of instrumentation. Some of the Development Flight Instrumentation sensors will be moved to other parts of the spaceship, or will be made part of the Operational Instrumentation system.

"Downstream, during the post-STS-5 modification period, the entire DFI package will be removed and replaced with a compact

measurement unit," he said. "Changes in location of these sensors will be compatible with the new measurement system.

"Major changes will also be required for the two commercial satellites, but with the idea that those changes will be compatible with future commercial customers as well."

Sieck said that in order to monitor spacecraft vital signs, as well as be able to send commands to the satellites and their associated handling equipment, "black boxes" will be installed as part of the Operational Instrumentation system.

Other "black box" changeouts will be made to upgrade the reliability of the flight control system.

Some of the work to be done on Columbia will not be for upcoming flights, but to fix problems encountered during the fourth mission.

Sieck said the actual number of post-flight anomalies, or problems, that engineers will fix prior to STS-5 is dramatically lower than on any previous flight: from about 150 items after STS-1 to only about 20 as a result of STS-4.

The major hardware changeouts will be the removal of the No. 1 fuel cell, replacement of the No. 3 Auxiliary Power Unit and its associated Water Spray Boiler, and changout of a thruster on the Forward Reaction Control System.

According to Sieck, the fuel cell will be returned to its manufacturer, United Technologies, for troubleshooting. "If it can be repaired in time, it will be reinstalled for flight. If

not, a spare will be put in its place," he said. "We suspect the fuel cell has a temperature control problem indicated by a low exhaust outlet temperatures seen during flight."

Shortly after liftoff, an upward firing thruster on the FRCS developed a small leak. Ground controllers shut off the manifold to that thruster for part of the mission. The leak appeared to stop, and the manifold was reopened for normal use of the thruster during reentry.

"But once we were back on the ground, the thruster began to seep again," he explained. "It may be temperature sensitive." The entire Forward RCS module will be pulled out and sent to the Hypergolic Maintenance Facility where the thruster will be pulled out and replaced.

As yet, Sieck said engineers cannot explain the pressure fluxuations seen on APU No. 3's lube oil system on the STS-4 flight. On STS-3, the Water Spray Boiler for the No. 3 APU froze up shortly after liftoff, forcing the astronauts to shut that particular APU down early. Each APU has an associated spray boiler to maintain the temperature of the lube oil system. Ground controllers saw a similar phenomenon on STS-4, however the WSB did not get cold enough to freeze up and the APU did not have to be turned off early. Both will pulled out of Columbia and sent to the Johnson Space Center for analysis.

A hot fire of the new APU that will replace the one removed will be performed at the conclusion of the tanking test on the

launch pad.

The toilet will also be an item of investigation. "The flight crew reported that the potty worked," said Sieck, "but the speed of the slinger appeared to be slower than it should have been." He said the toilet will be removed and sent back to its vendor, General Electric, for analysis.

Sieck said some troubleshooting will also be done on the controller that connects the orbiter to the Getaway Special canister prior to the fifth flight. A new GAS is slated to ride on STS-5 in the same place as the canister that was flown on STS-4.

"Of course, the manifest for STS-5 has changed," he added. "The STS-5 payloads will include the Monodisperse Latex Reactor, and the Electrophoresis Equipment Verification Test (EEVT)." The MLR will be making its third trip into space. This experiment is designed to study the feasibility of making identical size latex spheres which may have major medical and industrial research applications.

The EEVT was carried on STS-3. The experiment is designed to evaluate the feasibility of separating cells according to their surface electrical charge. Samples made during the third flight were ruined because of a failure of the freezer which preserves the degree of separation during descent.

Columbia, delivered on July 15 to Kennedy on the back of NASA's 747 Shuttle Carrier Aircraft, is being processed in Bay 1

of the sophisticated hangar. Next door, in Bay 2 of the Orbiter Processing Facility, sits Challenger, Columbia's sister ship, also being readied for space flight. Challenger's first mission is scheduled for January 1983.

Columbia is scheduled to be towed over to the Vehicle Assembly Building in mid-September where it will be mated to the two solid rocket boosters and external propellant tank. Following about 10 days of integrated checkout, the STS-5 vehicle will be moved to the launch pad.

Various tests, including a simulated countdown with the flight crew and a loading test of the external tank with liquid hydrogen and oxygen will be performed at the pad. The hypergolic propellants will be loaded aboard Columbia and the two communications satellites inserted in the cargo bay prior to start of the countdown. Launch of STS-5 is currently targeted for November 11.

Columbia's fifth mission is scheduled to end with a landing on the desert lakebed at Edwards Air Force Base, California.

Following STS-5, Columbia will be returned to Rockwell International's Palmdale Facility in California for modifications. Challenger will be used while Columbia is being outfitted for operational duty. Challenger's first job will be to take the first Tracking and Data Relay Satellite into orbit.

NASA News

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For Release:

Lisa Malone

Immediate

AC 305 867-2468
RELEASE NO. 187-82

MIMS FIRM AWARDED CONTRACT FOR TEST EQUIPMENT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded Industrial Steel, Inc. of Mims, Fla., a contract to manufacture test equipment for the Space Transportation System.

Industrial Steel will procure adapters and test fixtures to proof-test the Space Transportation System lifting and handling equipment. This equipment will be used to handle STS flight hardware, including Space Shuttle Orbiters and their subsystems, such as the payload bay doors and the reaction controls system.

This firm-fixed-price contract valued at \$50,348 began July 28 and will end February 1, 1983.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle has completed its fourth test flight and developmental phase. The fifth flight, scheduled for November, will be the first operational mission. The Space Shuttle is designed to provide routine and economical access to and from space for a variety of commercial, scientific and government users.

#

August 6, 1982

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8-6
For Release:

Lisa Malone

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AC 305 867-2468
RELEASE NO. 178-82

SPACEPORT TO GET NEW FIBER OPTIC COMMUNICATION CABLE SYSTEM

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded General Cable Company, Fiber Optics Division of Edison, New Jersey, and Pearl, Mississippi, a contract to install fiber optic communication cable at the Kennedy Space Center.

Work under the fixed-price contract valued at \$734,107 began June 28, 1982, and is due to be complete by January 27, 1983.

The fiber optic cable, as part of the new fiber optic system, will supplement the existing wide-band copper communication system that is presently used for sending and receiving video, computer, orbiter and payload data throughout the Kennedy Space Center.

Fiber optic terminal equipment is simultaneously being developed to convert data to light format and then back to the original data form. Special test equipment is also being assembled to verify the effectiveness of the terminal equipment.

The transforming units of the terminal equipment use lasers and Light Emitting Diodes (LEDs). These units aid in the data conversion process when the TV data, voice or information data is quickly changed into light. Traveling at the speed of light (186,000 miles per second), these data will reach their destination by way of the fibers. The reverse process, light to data, will occur virtually simultaneously when the message is received.

A fiber optic system has many advantages over copper cable systems. The copper cable bandwidth is approximately five megahertz whereas each fiber is approximately 850 megahertz. The usable data carrying capacity of the fiber optic cable is 100 times greater than the copper cable, and also more cost effective.

(more)

Page 2/ KSC Release No. 178-82/ Malone

General Cable will design, fabricate, install and test the fiber optic communication cable. Facilities to be interconnected are the Launch Control Center, Orbiter Processing Facility, Operations and Checkout Building, Hypergol Maintenance Facility and Vertical Processing Facility.

These facilities are involved in the processing and maintenance of the shuttle components and payloads, and also Space Shuttle launch activity.

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle has completed its fourth test flight and developmental phase. The fifth flight, scheduled for November, will be the first operational mission. The Space Shuttle is designed to provide routine and economical access to and from space for a variety of commercial, scientific and government users.

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August 6, 1982

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Lisa Malone

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RELEASE NO. 189-82

NOTICE TO EDITORS/NEWS DIRECTORS

PRESS MAY COVER SYMPOSIUM ON SHUTTLE STUDENT INVOLVEMENT PROJECT

KENNEDY SPACE CENTER, Fla. - News media representatives will have an opportunity to observe and interview participants in a national symposium on the Space Shuttle Student Involvement Project being held at KSC later this week.

The sessions open to the press will be held in the Audio-Visual Center at the Complex 39 Press Site on Thursday and Friday (August 12-13).

On Thursday, 20 high school students will give their presentations of shuttle experiment proposals. The all-day session will begin at 9 a.m. and extend - with a lunch break - until 4 p.m. The students were selected from 2,800 competitors in grades 9 through 12 in schools around the nation.

At 9 a.m. on the following day, August 13, there will be a student experiment integration plan overview presented by John Jackson, Manager, Student Experiments, Experiments and Operations Division at the Johnson Space Center in Houston.

Astronaut Ellison S. Onizuka, will be present to speak on astronaut involvement and considerations at 9:45 a.m. A Student Experiment Integration Procedures Panel will begin at 10:30 a.m. and continue until noon. Among the eight members are project, cargo and operations managers from NASA Headquarters and participating NASA field centers.

A session on identifying experiment requirements will extend from 1 - 4 p.m. and work sessions will end at 4:30 p.m. following a summary and conclusions presentation by Alan Ladwig, from NASA Headquarters in Washington, D.C., and Helenmarie Hofman from The National Science Teachers Association, NSTA.

This project gives secondary school students an opportunity to propose experiments suitable for flight aboard the Space Shuttle. The purpose of the program is to stimulate interest in science and technology by directly relating secondary school students with a space research program.

August 9, 1982

-End-

NASA News

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For Release:

Roland Raab
Area Code 305/867-2468

Immediately

KSC RELEASE NO. 188-82

ELECTROSPACE SYSTEMS, INC. TO PROVIDE COMPUTER SWITCHING GEAR

KENNEDY SPACE CENTER, Fla. -- Electrospace Systems, Inc., of Richardson, Texas, has won a \$1,600,000 contract to provide computer-controlled data switching equipment for use in the firing rooms of the Space Shuttle Launch Control Center.

Under the fixed price contract, the company will design, fabricate, test and deliver four Remote Controlled Video Switch Subsystems for use in the Space Shuttle's Launch Control Center. The subsystem is a computer controlled switching matrix which allows an operator to connect as many as 100 data channels to as many as 80 recording and display units. The new switching matrices will allow KSC to process multiple Space Shuttle orbiters using several firing rooms simultaneously.

Electrospace Systems, Inc., a small business firm, will perform the work at its plant location in Texas in a period of 12 months and three weeks from the contract date.

Kennedy Space Center is the launch and landing site for the revolutionary Space Shuttle, now entering its operational era. The Space Shuttle provides routine and economical access to and from space for a variety of government, commercial, private and educational customers.

August 10, 1982

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NASA News

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For Release:

Immediate

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Marshall Space Flight Center, Ala.
(205/453-0034)

Mark Hess
Kennedy Space Center, Fla.
(305/867-2468)

RELEASE NO: 190-82

SPACELAB 1 EXPERIMENT INTEGRATION COMPLETED

KENNEDY SPACE CENTER, Fla.--Installation of experiments on the Spacelab 1 pallet was completed last week with the attachment of the European Space Agency (ESA) Bridge - a platform supporting 12 European experiments.

"With installation of the bridge, we have completed physical integration of all Spacelab 1 scientific experiments," said Harry Craft, Spacelab 1 mission manager of NASA's Marshall Space Flight Center, Huntsville, Alabama. "We are proceeding smoothly toward beginning power-up of the experiments in late August. Following power up, we will begin a functional checkout of each experiment."

-more-

August 12, 1982

NASA News

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8-12

Dick Young
Area Code 305-867-2468

For Release:
Immediate

Release No. 191-82

NOTICE TO EDITORS/NEWS DIRECTORS:

CANADIAN SATELLITE LAUNCH RESCHEDULED FOR AUGUST 26

KENNEDY SPACE CENTER, Fla. - The launch of Anik D-1, a Canadian domestic communications satellite, has been rescheduled for Thursday, August 26.

Launch will be from Launch Complex 17-B at Cape Canaveral Air Force Station aboard an improved Delta rocket. There are three launch opportunities on August 26. These extend from 7:10-7:27 p.m., 8:07 to 8:12 p.m. and 8:51 to 9:31 p.m. EDT.

Launch was originally scheduled for August 12 but the mission was delayed by a combination of events. These included a one-week slip in the launch of Landsat-D aboard a Delta from Vandenberg Air Force Base which delayed processing of the Delta now on the pad at Complex 17-B.

Adding to the delay was a problem with ground support equipment which induced a failure in a Delta second-stage electrical package which controls pyrotechnic devices aboard the entire launch vehicle. Both the ground support equipment and electronic flight package problems have been corrected.

Also a factor was the revalidation of facilities at Pad B, which was recently modified to handle the later generation Deltas with their uprated second stage and Castor IV solid rocket boosters.

The Anik D-1 mission will be the first launched from Pad B since the SCATHA flight in early 1979.

A pre-launch news conference on the Anik D-1 mission will be held in the conference room of the E&O Building at Cape Canaveral Air Force Station at 11 a.m. on Wednesday, August 25.

- more -

Page 2 - Release No. 191-82

Media representatives with permanent credentials may drive directly to the E&O Building via Gate 1 at Cape Canaveral Air Force Station or the Florida Route 3 or NASA Causeway gates at KSC beginning at 10:30 a.m. News personnel without permanent badges should contact the News Center at Area Code 305-867-2468 to arrange for access and plan on being at the Complex 39 Press Site no later than 10:30 a.m. A caravan will leave at that time for the E&O Building.

On launch day, those with permanent credentials may drive directly to Press Site 1 on Cape Canaveral Air Force Station beginning at 5:30 p.m. Others will be badged by the Air Force at Gate 1 of CCAFS on Florida Route 401 between 5:30 and 6:15 p.m.

Media representatives unable to cover the pre-launch news conference or launch in person may monitor these activities by calling the KSC Operator at Area Code 305-867-7110 and asking to be connected with the V-2 circuit. Launch commentary will begin approximately one hour prior to liftoff and continue through spacecraft separation.

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August 12, 1982

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SI
M. Konjevich

NASA News

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Roland Raab
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For Release:
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Release No. 192-82

NOTICE TO EDITORS/ NEWS DIRECTORS

KENNEDY SPACE CENTER TO OPEN GATES FOR EMPLOYEES AND FAMILIES

KENNEDY SPACE CENTER, Fla. -- For the first time in several years, Kennedy Space Center is hosting an Open House for center employees and their families on Sunday, August 22.

The Open House is not open to the general public, but badged employees will be allowed to bring their families on the center to view the Space Shuttle launch areas, payload processing facilities, laboratories, and other areas. The highlight of the day is expected to be the traditional "return to launch site" ceremony with Ken Mattingly and Henry Hartsfield, the astronaut crew of STS-4. The ceremony will begin at 1:30 p.m., and will be held in front of the Orbiter Processing Facility, where the orbiters Columbia and Challenger will be on display. The center gates will be open from 9 a.m. until 4 p.m. for employees and their families.

Reporters may cover the events of the day between the hours of 11 a.m. and 3 p.m., and should report to the Press Site for escort to the various sites and facilities. Because of badging difficulties associated with the weekend, all reporters who plan to attend must call the Press Site (AC 305/867-2468) not later than noon, Friday, August 20 to make necessary arrangements.

August 17, 1982

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For Release:

Lisa Malone

Immediate

AC 305 867-2468
RELEASE NO. 194-82

ORLANDO FIRM WINS FIRING ROOM EQUIPMENT CONTRACT

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded Hall-Mark Electronics of Orlando, Fla., a contract for additional firing room equipment.

Four operational firing rooms will eventually be needed to fulfill the ambitious flight schedule of the Space Transportation System's fleet of four orbiters. Two of the four firing rooms are operational and are used for orbiters Columbia and Challenger.

The firing rooms, located in the Launch Control Center, are equipped with a highly automated launch processing system designed to automatically control and perform Shuttle checkout and launch activities.

The launch processing system continuously monitors thousands of measurements of temperatures, pressures, flow rates, liquid levels, turbine speeds, voltages, currents, valve and switch positions, and many other parameters.

The Remote Control Video Switcher System (RCVS) routes data from the orbiter to the Launch Control Center and then distributes the data to the appropriate firing room. This switcher system will need to be expanded before firing rooms three and four can become operational.

Hall-Mark Electronics, under a form-fixed-price contract, will deliver micro module chassis and peripheral equipment required for the expansion of the remote switcher system.

The contract has a value of \$36,984 and the equipment is due to be delivered by October 1, 1982. The third firing room is scheduled to be ready by December of 1982 and the fourth should be complete by December of 1983.

(more)

Page 2/ KSC Release No. 194/Malone

Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle vehicle. The Space Shuttle has completed its fourth test flight, which concluded the developmental phase. The fifth flight, scheduled for November, will be the first operational mission. The Space Shuttle is designed to provide routine and economical access to and from space for a variety of commercial, scientific and government users.

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August 17, 1982

M. Konjevich
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For Release:

Lisa Malone

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Release No. 196-82

NOTICE TO EDITORS/ NEWS DIRECTORS

CEREMONY SET FOR RENAMING STATE ROAD 405 TO COLUMBIA BOULEVARD

KENNEDY SPACE CENTER, Fla. - An official ceremony will be held on August 26 to observe the renaming of State Road 405 from State Road 50 in Titusville to the KSC boundary to "Columbia Boulevard."

The event will take place at 9:30 a.m. at Gate 3 in front of the Mercury/Redstone space vehicle adjacent to the Pass and Identification Building.

The ceremony will open with a welcome by George Page, KSC Deputy Director, followed by remarks from Winston W. "Bud" Gardner, State Representative, District 45. Gardner along with John Vogt, State Senator, District 17, and Clark Maxwell, Jr., State Senator, District 16, were instrumental in the renaming of the heavily-traveled thoroughfare. Vogt and Maxwell will also be present at the ceremony.

A number of state and local officials have been invited to attend.

An astronaut will be present to unveil the new "Columbia Boulevard" sign.

The roadway is being renamed after the Space Shuttle Orbiter Columbia, which has been flown successfully on four space missions and is now being prepared at KSC for launch on its fifth flight in November.

This area is open to the public and news media representatives who wish to cover the event may drive directly to the ceremony site. Representatives of the KSC Public Information Office will be at the ceremony to assist the press in coverage of this event.

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NASA News

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Dick McCormack
Headquarters, Washington, D.C.
(Phone: 202/755-8104)

For Release

IMMEDIATE

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Headquarters, Washington, D.C.
(Phone: 202/755-3897)

Jim Lacy
Goddard Space Flight Center, Greenbelt, Md.
(Phone: 301/344-8955)

Dick Young
Kennedy Space Center, Florida
(Phone: 305/867-2468)

KSC RELEASE NO: 197-82

NASA TO LAUNCH CANADIAN SATELLITE

A Canadian domestic communications satellite, Anik-D, is scheduled for launch by NASA from Cape Canaveral, Fla., no earlier than Aug. 26 with a launch window from 7:10 to 9:31 p.m. EDT.

This is Canada's 10th satellite and the fifth spacecraft in a series of domestic commercial communications satellites owned and operated by Telesat Canada. The spacecraft will be placed into a geosynchronous orbit to provide communications coverage over Canada, the second largest nation in area in the world.

The spacecraft will be positioned at 104 degrees west longitude within 30 days after launch and will be used by Telesat as an in-orbit replacement/backup for the three aging Anik-A (1972, 1973, 1975) and Anik-B (1978) satellites.

August 23, 1982

-more-

The Telesat payload for this Delta 3920 launch includes a McDonnell Douglas built Payload Assist Module and the Anik-D spacecraft. The Payload Assist Module, which replaces the normal Delta third stage, consists of a payload attach fitting, a solid rocket motor and a spin table. The solid rocket motor is used to propel the Anik-D spacecraft into an elliptical transfer orbit from a parking orbit provided by the Delta 3920. Gyroscopic stabilization of the payload is accomplished by spinning the Payload Assist Module and spacecraft at a planned rate of 50 rpm.

The Anik-D spacecraft is a synchronous altitude geostationary satellite designed to operate over a 10-year life span. The spacecraft is integrated and tested by Spar Aerospace for Telesat and carries a 24-channel communications payload.

The two main elements of the spacecraft are the spinning rotor, comprising 70 percent of the on-station vehicle weight, and the despun earth-oriented platform containing the communication repeater and its antenna.

A rotating interface, consisting of ball bearings and sliprings, permits signal transfers to take place and affords an electrical path over which power from the solar panels and batteries can flow to the repeater payload.

The overall spacecraft length, at launch, is 2.8 meters (112 inches); its maximum diameter is 2.17 m (85.33 in.). After antenna deployment and extension of one solar panel cylinder, the overall spacecraft length is 6.7 m (265 in.).

LAUNCH VEHICLE

This is the second launch of the NASA Delta 3920 launch vehicle, and the first launch of this version from the Eastern Space and Missile Center. The first launch was Landsat 4 from the Western Space and Missile Center on July 16, 1982.

The Delta Model 3920 straight-eight configured launch vehicle consists of an extended long tank Thor first stage with an RS-27 engine augmented with nine Castor IV solid rocket motors, a new second stage powered by an Aerojet AJ10-118K engine, and a 2.4 m (96-in.) diameter spacecraft fairing.

McDonnell Douglas Astronautics Corp., Huntington Beach, Calif., is the prime contractor for production and launch of the Delta launch vehicle. The company developed and made available commercially the Payload Assist Module (PAM-D) which takes the place of Delta's third stage and is considered part of the payload on the Anik-D launch. A Thiokol Star 48 propellant motor is the propulsion system for PAM-D. Thiokol also produces the Star 30 motor used as an apogee kick motor, mounted inside the spacecraft itself to inject the spacecraft into a geostationary orbit.

Trajectory for the Anik-D spacecraft mission covers the period from liftoff to first apogee of the transfer orbit.

FLIGHT PLAN

At T-0 seconds, the first stage main engine and six Castor IV solid rocket motors are ignited on the launch pad. The Castor IV motors complete their burn at 57 seconds. At 62 seconds the remaining three Castor IV solid rocket motors are ignited with their burnout occurring at 119 seconds. The first set of six ground ignited solid motors are jettisoned in groups of three at 70 and 71 seconds with the final set of three solids jettisoned at 122 seconds. Main engine cutoff occurs at 224 seconds. First stage separation occurs at 232 seconds with the spacecraft fairing jettisoned at 245 seconds.

At second stage cutoff (SECO), 672 seconds, the vehicle is injected into an elliptic 225 by 187 km (121.6 by 101.1 n.mi.) transfer orbit designed to provide a 185 km (100 n.mi.) altitude near the equator. Following SECO, pitch and yaw commands are executed by the Delta vehicle to provide the required burn attitude for the PAM-D stage. Two seconds prior to stage II/PAM-D separation, the PAM-D stage is spun up to 50 rpm.

With the separation of the payload (PAM-D and spacecraft) from the second stage, NASA/Delta responsibilities are concluded.

At 1,297 seconds into the mission the PAM-D motor is ignited. An 86-second burn places the satellite into a geostationary transfer orbit. The orbit parameters at PAM-D engine cutoff are as follows: apogee altitude (integrated), 36,342 kilometers (19,623 nautical miles); perigee altitude, 185 km (100 n.mi.); argument of perigee, 178 degrees; and inclination, 24.5 degrees.

ANIK-D SPACECRAFT MISSION TRAJECTORY MARK EVENTS

| Event..... | Time (sec) |
|---|------------|
| Stage I Liftoff | 0 |
| Six Solid Motors Burnout | 57 |
| Three Solid Motors Ignition | 62 |
| Jettison Three Solid Motor Casings | 70 |
| Jettison Three Solid Motor Casings | 71 |
| Three Solid Motors Burnout | 119 |
| Jettison Three Solid Motor Casings | 122 |
| Main Engine Cutoff..... | 224 |
| Vernier Engine Cutoff | 230 |
| Stage I-II Separation | 232 |
| Jettison Fairing | 245 |
| Second Engine Cutoff Command..... | 672 |
| Final Cutoff — Stage II | 672 |
| Start PAM-D Ignition Time Delay Relay | 1,257 |
| Fire Spin Rockets | 1,257 |
| Jettison Stage II | 1,259 |
| PAM-D Ignition | 1,297 |
| PAM-D Burnout | 1,383 |
| Jettison PAM-D Stage | 1,497 |
| First Apogee | 20,628 |

A second stage depletion burn is required for the Telesat/ Anik-D mission.

Prior to engine restart, the second stage is reoriented to an attitude which precludes the possibility of stage deorbit. The decision was made to orient the stage such that the remaining impulsive velocity would cause the minimum increase to orbit energy level (that is, the increase in apogee and perigee altitudes) and the maximum reduction in orbit inclination angle. (A change in orbit nodal angle will also occur.) The stage centerline will be oriented at restart to be approximately 80 degrees to the velocity vector. Achievement of this attitude requires a roll-pitch maneuver with the attitude rates applied serially. Restart will be initiated at 4,700 seconds. The second stage will burn to nominal propellant depletion 17.4 seconds later and will provide an impulsive velocity of 574 m (1,884.2 feet) per second. A sequence of events for the depletion burn is presented in the table below. The orbit characteristics at initiation and completion of the depletion burn are as follows:

| | Nominal <u>Ignition</u> <u>Burnout</u> |
|---------------------------------|---|
| Apogee Altitude (km and n.mi.) | 218 (117.8)536 (289.6) |
| Perigee Altitude (km and n.mi.) | 195 (105.5)218 (117.7) |
| Inclination (degrees) | 28.9626.14 |
| Argument of Perigee (degrees) | 184.8953.33 |

SECOND STAGE DEPLETION BURN TRAJECTORY

SEQUENCE OF EVENTS AND CONTROL PROGRAM

| <u>Event</u> | <u>Time (sec)</u> |
|---|-------------------|
| Stage II Separation | 1,288 |
| Begin Coast Phase Roll Program (Roll Rate = 0.55896 Deg/Sec) | 4,190 |
| End Coast Phase Roll Program | 4,340 |
| Begin Second Coast Phase Pitch Rate (Pitch Rate = 0.56690 Deg/Sec) | 4,350 |
| End Coast Phase Pitch Program | 4,550 |
| Restart Stage II | 4,700 |
| Start of Steady State Burn | 4,700 |
| Final Cutoff - Stage II (SECO 2) | 4,717 |

NASA/TELESAT TEAM

NASA Headquarters

| | |
|-------------------------|--|
| Lt.Gen. J.A. Abrahamson | Associate Administrator for Space Flight |
| Joseph B. Mahon | Director, Expendable Launch Vehicle Program |
| Peter Eaton | Program Manager, Delta |
| R. E. Smylie | Associate Administrator for Space Tracking and Data Systems |

Goddard Space Flight Center

| | |
|---------------------|--|
| Noel W. Hinners | Director |
| William C. Keathley | Director, Project Management |
| David W. Grimes | Delta Project Manager |
| William R. Russell | Deputy Delta Project Manager Technical |
| John D. Kraft | Manager, Delta Mission Analysis and Integration |
| Warner H. Hord | Telesat Mission Integration Manager |
| Robert I. Seiders | Mission Operations and Network Support Manager |
| Ray Mazur | Mission Support |

Kennedy Space Center

| | |
|------------------|--|
| Richard G. Smith | Director |
| George F. Page | Deputy Director |
| Thomas S. Walton | Director, Cargo Operations |
| Charles D. Gay | Director, Expendable Vehicles Operations |
| Wayne L. McCall | Chief, Delta Operations |
| Jim Weir | Acting Chief, Automated Payloads Division |
| Gayle Hager | Spacecraft Coordinator |

Telesat Canada

Eloon Thompson

President

William Zatychee

Director, Satellite Systems
Division

Dave Griffiths

Manager, Launch Services

John Korda

Space Manager, Anik-D

Ray Miles

Range Coordinator, Anik-D

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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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For Release:

Immediate

Weida G. Tucker
Area Code 305/867-2468

RELEASE NO: 198-82

ALABAMA FIRM AWARDED EXTENSION OF SHUTTLE PROCESSING CONTRACT

KENNEDY SPACE CENTER, FLA. - United Space Boosters, an operating unit of United Technologies' Norden Systems subsidiary, has won an extension of its current contract to perform processing operations for the solid rocket boosters used on the Space Shuttle.

The contract extension is valued at \$12,604,000, bringing the cumulative value of the company's contract with the National Aeronautics and Space Administration to \$54,331,737. Under the contract, the company provides for receiving inspections of the booster segments, nozzle assemblies, nozzle extensions, and associated hardware. It also provides for assembly and checkout of the various parts of the booster through pre-launch, launch, post-launch, recovery and disassembly operations.

The cost plus award fee contract extension covers the period from April 1 through December 31, 1982.

The company, headquartered in Huntsville, Alabama, conducts its Florida operations from the Kennedy Space Center. United Space Boosters also has offices at Slidell, Louisiana, and Vandenberg Air Force Base, California.

Kennedy Space Center is NASA's primary launch and landing site for the reusable Space Shuttle vehicle. The Space Shuttle is scheduled for launch on its fifth mission no earlier than November 11.

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September 1, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Mark Hess
Kennedy Space Center, Fla.
(Phone: AC 305/867-2468)

Immediate

RELEASE NO: 201-82

Notice To Editors/News Directors

COLUMBIA SCHEDULED FOR MOVE TO ASSEMBLY BUILDING SEPTEMBER 8

KENNEDY SPACE CENTER, Fla.--Ready to embark on its first operational flight, the spaceship Columbia is scheduled to be moved from the Orbiter Processing Facility to the Vehicle Assembly Building on Wednesday, September 8. The move is scheduled to begin at midnight and should take about 30 minutes.

In High Bay 3 of the VAB, Columbia will be mated with its external propellant tank and twin solid rocket boosters, completing the assembly of the Space Shuttle vehicle scheduled to make the first operational flight of the nation's Space Transportation System on November 11, 1982.

All press activities for coverage of the transfer will be staged from the Complex 39 Press Site. Permanently badged media may drive directly to the Press Site via Gate 2 located on Florida Route 3, or via Gate 3 located on State Road 405, after 10 p.m. on Wednesday. Press without permanent credentials will be badged from the Gate 2 Pass and Identification Building beginning at 10 p.m. on Wednesday.

News media who wish to cover the transfer and mate operations should be at the Press Site no later than 11 p.m. on Wednesday. Transportation to the viewing area will be provided.

The KSC News Center will be open from 8 a.m. Wednesday until the transfer has been completed. Up to date information on the transfer can also be obtained by calling the News Center at Area Code 305/867-2468 or the automatic telephone system at Area Code 305/867-2525.

Because the schedule could change, news media are urged to keep in touch with the KSC News Center for the latest information.

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NASA News

IF.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

Mark Hess
Kennedy Space Center, Fla.
(Phone: AC 305/867-2468)

For Release
Immediate

RELEASE NO: 202-82

COLUMBIA SET FOR TRANSFER TO VAB FIT FOR OPERATIONAL DUTY

KENNEDY SPACE CENTER, Fla.--Ready to make its first operational flight, the Space Shuttle Orbiter Columbia is scheduled to be moved to the Vehicle Assembly Building on September 8 where it will be attached to its external tank and twin solid rocket boosters.

Columbia is scheduled to blast off on its fifth mission November 11 with two commercial communications satellites inside its 60-foot long payload bay.

The crew for the five-day mission will be Commander Vance Brand, Pilot Robert Overmyer and Mission Specialists Joe Allen and William Lenoir.

Columbia will have spent about eight weeks in the hangar-like Orbiter Processing Facility prior to its move to the VAB.

-more-

September 3, 1982

The most significant changes made during that time were geared to transforming Columbia from a development vehicle into a spacecraft designed for operational use.

Preparations for Columbia's return to Kennedy began shortly after the 100-ton orbiter's Fourth of July landing on a hard runway at Edwards Air Force Base, California, witnessed by President and Mrs. Reagan and a crowd estimated at more than half a million people.

Columbia's 11-day stay at nearby Dryden Flight Research Facility was longer than previous post-mission periods. Ferry-flight preparations were held up waiting for the return of the aerodynamic tailcone which was being used to take Challenger - the second orbiter spacecraft off the assembly line - to KSC.

Columbia arrived back at Kennedy on July 15, one day ahead of schedule, and was moved into the sophisticated hangar that same evening.

Provided the orbiter rolls out on schedule September 8, it will have spent a total of 55 calendar (40 work) days in the OPF compared to 43 calendar (40 work) days in the OPF prior to STS-4. Turnaround on this flow was longer due to changes needed to outfit Columbia for operational use.

The number of post-flight modifications to Columbia dropped from 59 during the STS-4 turnaround to 47 in preparation for its fifth flight. However, the changes were of a much higher magnitude than those preceeding the fourth mission. The major

Routine post-flight inspections of all three of the Columbia's main engines were conducted and no problems were discovered. The No. 1 engine's high pressure oxidizer turbo pump, which had the highest amount of run time, was replaced with a new pump.

High pressure fuel pumps for the No. 2 and No. 3 engines were also removed and inspected. The fuel pump on the No. 3 engine was replaced with a spare because of a high breakaway torque value.

The power down modification period began July 31 and extended through August 8. During that period, the fourth set of cryogenic oxygen and hydrogen tanks was removed, which will save about 1,300 pounds on the overall weight of the vehicle.

While Columbia was powered down, the forward RCS module was taken out and transported to the Hypergolic Maintenance Facility for replacement of the thrusters. The ejection seats were deactivated during this period, and payload support fittings for the two satellites were put in the cargo bay.

A new item installed in Columbia specifically for STS-5 was the Task Simulation Device. Installed in the forward right-hand side of the orbiter's cargo bay, this small portable work station holds the tools the mission specialist astronauts may try out if a "space walk" is attempted on STS-5.

At the completion of the modification period, engineers began revalidating orbiter systems. Leak and functional checks

modifications involved crew module changes needed to accommodate the 4-man crew for STS-5.

Preparations for STS-3, when 94 changes were made to the vehicle, required Columbia to remain in the OPF for a total of 69 calendar (53 work) days.

Early processing in the OPF focused on removing experiments and equipment flown on STS-4 and fixing flight problems.

Among the items removed that will not fly on STS-5 were the Remote Manipulator Arm and the Induced Environmental Contamination Monitor. The result will be a weight savings of more than 1,700 pounds.

Troubleshooting of STS-4 flight problems resulted in the removal and replacement of the No. 3 Auxiliary Power Unit and its associated Water Spray Boiler.

The orbiter's No. 1 fuel cell was also pulled because of a temperature control problem. A different unit, one which was completely refurbished after flight on STS-2, was put in its place.

Other hardware replaced in the OPF included one upward-firing thruster in the forward RCS module, all six of the smaller vernier thrusters, the No. 3 Inertial Measurement Unit, and the No. 2 Tactical Air Navigation (TACAN) Unit.

The Waste Management System, or toilet, was removed and is scheduled to be reinstalled in the Columbia after the vehicle is on the launch pad.

Final preparations for the September 8 transfer to the VAB are currently underway. After the potable (drinking) water tanks are filled to their pre-launch levels, a positive pressure test of the vehicle's forward RCS module and aft compartments will be conducted.

Hydraulics will be applied to the orbiter for the last time in the OPF to lower the landing gear and position the body flap. Then the orbiter will be powered down and disconnected from facility power and cooling systems.

Finally the spaceship will be lowered onto scales for a final weighing so the vehicle's center of gravity can be calculated. The orbiter is then ready to be towed to the Vehicle Assembly Building.

When the spaceship is moved from the OPF, it will be essentially ready for flight except for the installation of the two satellites. They will be put in the cargo bay at the launch pad about mid-October.

Inside the VAB, the Columbia will be mated with its external tank and solid rocket boosters. The assembled vehicle will undergo about six days of integrated tests. Integrated testing in the VAB will include a mission run to simulate the Abort Once Around capability of the orbiter's new version 19 software for STS-5. An additional day will be needed to install explosive devices in the vehicle and prepare it for the move to the launch site. The STS-5 vehicle is scheduled for rollout on September 21.

were conducted of Columbia's propulsion, power generation and environmental control systems. Navigational aids, the electrical distribution and data processing systems were also tested.

Systems-level testing was followed by the servicing of orbiter environmental control and life support systems with fresh water, oxygen, nitrogen, freon and ammonia supplies.

Also tested was the orbiter's hydraulic system, including an exhaustive test of the flight control system which exercised all of the airplane-like flight control surfaces and the main engine positioning system.

Parallel with all of the other work being done on Columbia, a skilled team of technicians was removing, repairing and bonding tiles on the spaceship. Workers removed less than 300 tiles while Columbia was in the OPF, compared to the more than 1,000 tiles taken off after the third mission.

Some 200 tiles were pulled off because they were either damaged in the hail storm that pelted the orbiter the night before the STS-4 launch, or were damaged in flight or during turnaround processing. Another 21 tiles were removed for engineering evaluation. Repairs made to the hail-damaged tiles, most of which was minor damage, or those damaged during processing, totaled about 10,000. There are not expected to be any cavities in the orbiter's thermal protection system when Columbia is moved to the VAB.

Major tests at Complex 39's Pad A will include checks between the vehicle and pad systems, a launch-day rehearsal with the STS-5 flight crew on September 24, and a propellant loading test of the shuttle's external tank on September 28.

Columbia's maneuvering and reaction control system propellant tanks will be serviced for flight with hypergolic propellants in early October, followed by insertion of the STS-5 cargo in the payload bay.

Countdown preparations should begin the first of November, leading up to the start of the five-day shuttle launch countdown and liftoff of STS-5 on November 11.

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

K

For Release:

Weida G. Tucker
Area Code 305/867-2468

Immediate

RELEASE NO. 199-82

DENVER FIRM AWARDED CONTRACT EXTENSION FOR SPACE SHUTTLE

SPACE CENTER, FLA. - NASA's John F. Kennedy Space Center has awarded a \$11,521,430 extension of a current contract to Martin Marietta Corporation, Denver, Colorado, to perform External Tank processing operations for the Space Shuttle. The cumulative value of the company's contract with the National Aeronautics and Space Administration to provide these services is \$54,322,823.

Under terms of the contract, Martin Marietta will provide for planning, control and performance activities which will ensure that the External Tank and associated support equipment will operate within specifications. Martin Marietta will also provide engineering capability to implement facility and equipment modifications associated with the External Tank. The cost plus award fee contract covers the period from April 1 through December 31, 1982.

The External Tank contains propellants for the orbiter's three high-efficiency main engines. The propellants are cryogenic - or supercold - liquid hydrogen and liquid oxygen, the most efficient propellant combination used in rockets today.

Kennedy Space Center is the primary launch and landing site for the reusable Space Shuttle vehicle, now entering its operational era. The next Shuttle launch is scheduled for no earlier than November 11.

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September 7, 1982

NASA News

IF.5 #19

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National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

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Area Code 305/867-2468

RELEASE NO. 200-82

TRW AWARDED EXTENSION OF CONTRACT FOR SPARE PARTS FOR SHUTTLE

KENNEDY SPACE CENTER, FLA. - The Defense and Systems Group of TRW, Incorporated, Redondo Beach, California, has been awarded an extension of a contract to provide spare parts for payload interrogators and payload signal processors for the Space Shuttle. The parts will be manufactured at the TRW plant in Redondo Beach and in Colorado Springs, Colorado.

The contract totals \$1,614,000, bringing the cumulative value of the TRW contract to \$5,795,549. The cost plus fixed fee contract calls for the spare replacement units to be delivered to the Kennedy Space Center in August 1984.

The spare parts are used for Cargo Interrogator Test Equipment and Air Force Orbiter Functional Simulators to determine that payloads are functional before they are loaded into the cargo bay of the Space Shuttle launch vehicle.

The Space Shuttle is a revolutionary new transportation system designed to provide routine and economical access to space for scientific, commercial and defense users. Four successful developmental flights have already been made, and the Shuttle is expected to move into its operational era with the launch of its fifth mission, which is planned for no earlier than November 11.

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September 7, 1982

NASA News

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John F. Kennedy Space Center
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For Release:

Roland Raab
AC 305/867-2468

Immediate

Release No: 204-82

ROCKWELL INTERNATIONAL WINS SPACE SHUTTLE CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla. -- Rockwell International Corporation's Space Systems Group of Kennedy Space Center, Florida, has won a \$94,667,400 extension to its Space Shuttle processing contract here.

The contract extension calls for Rockwell to perform normal processing functions to prepare the Space Shuttle Orbiter for launch at Kennedy Space Center. The work includes all aspects of preparation of the orbiters, their main engines and other hardware during pre-launch, launch, and post-landing activities.

The cost plus award fee extension brings the total value of the existing contract to the sum of \$416,534,543. The contract has been in force since January 1, 1977, and this extension covers the period from March 31, 1982 through December 31, 1982.

Kennedy Space Center is the primary launch and landing site for the Space Shuttle, now entering its operational era. The revolutionary Space Shuttle provides routine and economical access to and from space for a variety of government, commercial, private and educational customers.

September 7, 1982

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NASA News

IF.5 #19



National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:

Weida G. Tucker
305/867-2468
Release No: 205-82

Immediate

TITUSVILLE SMALL BUSINESS FIRM AWARDED NASA CONTRACT

KENNEDY SPACE CENTER, FLA. - A Titusville construction company, the Holloway Corporation, has been awarded a \$63,377 contract by NASA that is the result of a set-aside for a small business firm.

Under the terms of the fixed price contract, the Holloway Corporation will provide the labor, equipment and materials to prepare for the installation of Shuttle Inventory Management System II computer equipment in the Central Instrumentation Facility Building at Kennedy Space Center. This will involve some removal work in making space for the equipment, modification of air conditioning ducts, and installation of a fire protection system.

The Shuttle Inventory Management System II equipment stores a computerized, up-to-date inventory of spare parts and materials needed for the Space Shuttle.

Kennedy Space Center is the primary launch and landing site for the Space Shuttle, a revolutionary vehicle which provides routine and economical access to and from space. The Space Shuttle will enter its operational era with the launch of its fifth mission, which is scheduled for no earlier than November 11.

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September 9, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release

Mark Hess
Kennedy Space Center, Fla.
(Area Code 305/867-2468)

Immediate

RELEASE NO: 206-82

Mock Launch of Space Shuttle With STS-5 Crew Aboard Set For September 17

KENNEDY SPACE CENTER, Fla.—Tests of the assembled Space Shuttle vehicle to assure its readiness for a September 21 rollout to the launch pad are scheduled to conclude this week with a mock Abort-Once-Around mission run. At the controls of the spaceship for the simulated mission will be the STS-5 prime crew.

The simulated Abort-Once-Around (AOA) is the final phase of the Shuttle Interface Test. The SIT is actually a series of tests that take nearly a week to conduct. The purpose of the test is to checkout critical connections between the orbiter, its external propellant tank and the twin booster rockets.

STS-5 Commander Vance Brand and Pilot Robert Overmyer are scheduled to participate in the mock Abort-Once-Around (AOA). One of several abort options, AOA could be used to return the orbiter spaceship to Earth in the event of a failure during the boost phase of the mission. In an AOA situation, the Columbia would land near the end of one orbit.

-more-

September 13, 1982

The mission run is being conducted to simulate the AOA capability of the orbiter's new version 19 software for the STS-5 mission, scheduled to begin with a launch on November 11 from Pad A at KSC's Complex 39.

The Shuttle Interface Test began on September 13. The bulk of the test is devoted to checkout of individual systems onboard the orbiter, external tank and solid rocket boosters, and integrated tests to verify critical electrical and mechanical connections between the shuttle elements.

Among systems tested during the first phase of the SIT are orbiter electrical distribution, environmental control, instrumentation, flight control and propulsion systems.

At the same time, checks are made of external tank instrumentation, power, range safety and tumble valve systems, and solid rocket booster hydraulic, electrical, instrumentation and range safety systems are verified to be working properly.

To "fool" the shuttle into thinking an actual launch is taking place, special computer programs, called Dynamic Integrated Test (DIT) software, is loaded into Columbia's onboard computers and the sophisticated Launch Processing System located in the Firing Room. The mission simulation is scheduled to take about 90 minutes to complete, which includes the amount of time it will take to run the mock ascent and reconfigure the computers for the simulated reentry.

A Call to Stations of test team personnel for the simulation launch is set for 10 p.m. , September 16. The clock will be set at T-10 hours with the T-0, or simulated liftoff, scheduled for 9 a.m. Friday, September 17.

Crew entry into the orbiter vehicle will occur at about the T-25 minute mark. Crew entry will be during a planned 30-minute built in hold. Other hold points during the terminal part of the test will occur at T-20 minutes for a duration of 10

minutes, at T-9 minutes for 10 minutes, and a final planned hold at T-31 seconds for 5 minutes.

At the conclusion of the Shuttle Interface Test, technicians will install explosive charges in the twin booster rockets, followed by a day of preparations to ready the vehicle for transport to the launch pad. Rollout of the STS-5 vehicle to Complex 39's Pad A is tentatively set for September 21.

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NASA News

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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

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Mark Hess
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(Phone: AC 305/876-2468)

RELEASE NO: 208-82

NOTICE TO EDITORS/NEWS DIRECTORS

SPACE SHUTTLE ROLLOUT TO LAUNCH PAD SET FOR SEPTEMBER 21

KENNEDY SPACE CENTER, Fla.--The Space Shuttle vehicle that will make the first operational flight of the nation's Space Transportation System is scheduled to be moved to the launch pad on Tuesday, September 21.

Also scheduled that day is a status update by KSC Shuttle Processing Director Al O'Hara on preparations for the fifth launch of the Space Shuttle.

Start of the 5.6-kilometer (3.5-mile) trip from the Vehicle Assembly Building to Complex 39's Pad A is tentatively set for 6 a.m. It will take an estimated eight hours to complete the move to the launch pad.

The status briefing will be held at 11 a.m. in the auditorium at the Complex 39 Press Site.

News media with permanent NASA press credentials may proceed directly to the Complex 39 Press Site on Tuesday beginning two hours before the scheduled rollout time.

News media personnel who do not hold permanent NASA press credentials should contact the KSC News Center at Area Code 305/867-2468 to make the necessary badging arrangements.

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September 16, 1982

Temporary passes will be issued to media at the Gate 2 Pass and Identification Building located on Florida Route 3 on Merritt Island. The Pass and I.D. building will be open Tuesday, September 21, beginning two hours before the scheduled rollout time.

The Complex 39 Press Site will open Tuesday two hours before rollout. All press coverage will be staged from the Complex 39 Press Site and media representatives who plan to cover the event should be there at least one hour before the start of the move. Transportation to and from the viewing area will be provided.

The office will be closed the weekend of September 18-19. News media will be able to reach News Center personnel on Monday for status, during normal operating hours, from 8 a.m. to 4:30 p.m.

Rollout status will also be maintained on the KSC News Center automatic telephone system, which can be reached by calling Area Code 305/867-2525.

Those news media unable to attend the news conference in person may monitor the briefing over the V-2 circuit. To obtain that circuit, call the KSC operator at 305/867-7110 and ask to be patched into the V-2 circuit.

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SI
M. Konjevich

NASA News

1F.5 #19

K

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Weida G. Tucker
Area Code 305/867-2468

Immediate

RELEASE NO: 207-82

MERRITT ISLAND SMALL BUSINESS AWARDED CONTRACT BY NASA

KENNEDY SPACE CENTER, FLA. - Jones Machine and Welding Shop of Merritt Island has been awarded a \$107,699 contract by NASA that is the result of a set-aside for a small business firm.

Under the terms of the fixed price contract, Jones Machine and Welding Shop will provide 36 hold-down bolts, which are approximately 4 feet long, 5 inches in diameter and weigh about 150 pounds. The hold-down bolts are expected to be delivered to the Kennedy Space Center in approximately five months.

An explosive nut at the top of the bolt and a nut at the bottom are tightened to preload the bolt to a tension of up to 850,000 pounds. At launch time, the Shuttle's main engines are ignited, and ignition signals are sent to the Solid Rocket Boosters when full thrust is developed. Simultaneously, the explosive nuts at the tops of the bolts are triggered. The pre-tensioned bolts are expelled downward into deceleration stands and the fractured halves of the explosive nuts are contained within debris catchers. This process effects release of the Solid Rocket Boosters and the lift-off of the Space Shuttle vehicle for flight.

Kennedy Space Center is the primary launch and landing site for the reusable Space Shuttle, which provides routine and economical access to space. The fifth mission of the Space Shuttle is scheduled for launch no earlier than November 11.

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September 16, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

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For Release:

Jim Ball
Kennedy Space Center, Fla.
(Phone: AC 305/867-2468)

IMMEDIATE

RELEASE NO: 209-82

NATO ADVISORY GROUP DELEGATES VISITING SPACE CENTER

KENNEDY SPACE CENTER, Fla.-- About 100 national delegates and representatives of the Advisory Group for Aerospace Research and Development (AGARD) are touring the space center Friday, September 17, as the concluding activity of their annual meeting.

The NATO advisory group meets each year in a different member nation and this year's gathering is being hosted by the United States. Delegates generally close their meetings with a visit to an aerospace-related facility in the host country.

The group is scheduled to arrive at KSC's Shuttle Landing Facility Friday morning after a flight from Washington, D.C. They will be welcomed by KSC Center Director Richard Smith and Col. Marvin Jones, Commander of the Eastern Space and Missile Center. They will be provided with briefings on the Kennedy Space Center and the Space Shuttle program.

AGARD delegates and representatives will then be given a tour of the Complex 39 facilities and have an opportunity to view the European-built Spacelab in the Operations and Checkout Building.

The advisory group provides NATO member nations an organization for scientific and technical exchanges and assistance in the aerospace field.

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September 16 1982

NASA News

1F.5 #19

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National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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For Release:

Immediate

Mark Hess
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RELEASE NO: 210-82

NOTICE TO EDITORS/NEWS DIRECTORS

INTELSAT V PRE-LAUNCH NEWS CONFERENCE SCHEDULED FOR SEPTEMBER 22

KENNEDY SPACE CENTER, Fla.--A pre-launch press conference on the Intelsat V-E mission will be held at 11 a.m. on Wednesday, September 22.

Launch of the Intelsat V-E spacecraft aboard an Atlas Centaur rocket is scheduled for Thursday, September 23. The launch window on that date extends from 7:07 p.m. until 9:01 p.m. EDT.

The news conference will be held in the conference room of the E&O Building at Cape Canaveral Air Force Station. News media with permanent press credentials may drive directly to the conference by way of Gate 1 at Cape Canaveral Air Force Station, or via KSC Gates 2 or 3 beginning at 10:30 a.m.

Those without permanent badges should call the KSC News Center at Area Code 305/867-2468 and make necessary arrangements for access. Transportation to the news conference will be provided, and will leave the Complex 39 Press Site at 10:30 a.m.

Intelsat V-E is the fifth in a new series of nine international telecommunications satellites owned and operated by the 105-nation International Telecommunications Satellite Organization (Intelsat). The satellite will be positioned in geosynchronous orbit over the Indian Ocean as the prime Intelsat satellite to provide communications services between Europe, the Middle East and the Far East.

On launch day, permanently badged media personnel may drive directly to Press Site 1 on Cape Canaveral Air Force Station via Gate 1 beginning at 5:30 p.m. Others will be badged at the Gate 1 Pass and Identification Building from 5:30 until 6:15 p.m.

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September 16, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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1F.5 #19
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For Release:

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RELEASE NO: 211-82

MAJOR PAD TESTS TO INCLUDE WET AND DRY COUNTDOWN DEMONSTRATIONS

KENNEDY SPACE CENTER, Fla.--Tests at Complex 39's Pad A in preparation for the November 11 liftoff of STS-5 will include a launch day rehearsal with the STS-5 flight crew and a loading test of the Space Shuttle's external propellant tank.

A Terminal Count Demonstration Test (TCDT) is scheduled for Friday, September 24. Crew members Vance Brand, Robert Overmyer, Joe Allen and William Lenoir will participate in the test from their seats inside the Columbia. The test will end with a simulated firing of the shuttle main engines, planned for 11 a.m. Friday, September 24.

The test is designed to simulate as closely as possible the final hours of an actual shuttle launch countdown, including those activities that involve the flight crew. The test is called a "dry" Terminal Count Demonstration Test because liquid oxygen and hydrogen propellants will not be loaded into the external tank for this simulation.

The test is scheduled to begin Thursday evening, September 23. The clock will start at the T-14 hour mark.

Crew members will begin their participation in the test with a wakeup call from the NASA Test Director at 6:50 a.m. Friday. After a brief physical, breakfast and weather update, the crew will depart the Operations and Checkout Building for the launch pad in the Astronaut Van. Departure is set for 8:10 a.m.

When the flight crew leaves the O&C Building, they be wearing their familiar bright blue coveralls, instead of the bulky orange ejection suits that previous shuttle astronauts have worn. Pressurized flight suits will no longer be used because the ejection seats in the Columbia have been deactivated, a sign of the vehicle's maturing into an operational spaceship. Crew entry into the orbiter Columbia should begin about 8:45 a.m.

Planned holds in the countdown will occur at T-20 minutes and at T-9 minutes. Coming out of the built-in-hold at T-9 minutes, the countdown will be taken over

-more-

September 20, 1982

automatically by the Ground Launch Sequencer (GLS). This computer-controlled program monitors more than 1,000 different measurements and sequences time-critical events during the final nine minutes of the countdown. It is designed to automatically stop the countdown if any problems come up, or if any of the measurements it is monitoring falls out of pre-set margins. The test will end with the simulated ignition of the three shuttle main engines.

The Integrated Cryogenic Loading Test, scheduled for Tuesday, September 28, involves filling the Space Shuttle's external tank with liquid hydrogen and oxygen to check the integrity of the tank's exterior insulation, verify the loading sequence and test the ability of shuttle systems to function properly in the super-cold environment. Liquid hydrogen has a temperature of -423 degrees F (-253 degrees C) and oxygen is maintained in its liquid state at a frigid 297 degrees F (-183 degrees C).

After the tank has been filled, a mock countdown will be performed culminating in a simulated liftoff at 11 a.m. Tuesday.

The tanking test holds special significance this time because the external tank for STS-5 is the first without an antieyser line. The 4-inch diameter line was designed to prevent the liquid oxygen from flowing too quickly into the tank. Experience from previous tanking tests and shuttle launches has shown the line is not necessary to properly fill the nearly 140,000 gallon liquid oxygen tank.

Another important check to be made at the end of the loading exercise will be a seven minute retest of the No. 3 Auxiliary Power Unit that was replaced between flights 4 and 5. The orbiter has three APUs to provide the power to the hydraulic systems to gimbal engine nozzles and move the orbiter's airplane-like flight control surfaces.

The tanking test is scheduled to begin Monday afternoon, September 27. The clock will start at T-20 hours. The protective Rotating Service Structure will be pulled back to the launch position for the tanking test at about 9:45 p.m. Tuesday at the T-13 hour mark.

Loading of the propellants will begin at T-5 and 1/2 hours or about 5:15 a.m. Tuesday. It will take approximately three hours to fill the external tank.

Momentary pauses in the countdown will occur at T-20 minutes, and T-9 minutes. The Ground Launch Sequencer will take command following the T-9 minute hold and verify that shuttle components, under the stress of extremely cold temperatures, are still functioning within the "go for launch" criteria.

After the test is completed, the liquid propellants will be drained out of the tank and a detailed inspection will be made to make sure there is no delamination of its exterior insulation.

Successful completion of these two major tests will clear the way to begin the final pre-launch preparations, which will include servicing of Columbia's maneuvering engine tanks with hypergolic propellants, and the installation in the orbiter's cargo bay of the two communications satellites that will make up the primary cargo for the fifth shuttle mission.

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NASA News

National Aeronautics and
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IF.5 #19

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RELEASE NO: 212-82

NOTICE TO EDITORS/NEWS DIRECTORS

NEWS MEDIA MAY COVER ASTRONAUT PARTICIPATION IN LAUNCH REHEARSAL

KENNEDY SPACE CENTER, Fla.—There will be several photo opportunities of the STS-5 prime crew during the two-day "dry" Countdown Demonstration Test.

On Thursday, September 23, from 7 a.m. until 8:30 a.m., STS-5 Commander Vance Brand and pilot Robert Overmyer will be flying the Shuttle Training Aircraft at KSC's Shuttle Landing Facility. At the same time, Mission Specialists Joe Allen and William Lenoir will be flying T-38 jet trainers around the landing site. News media will have the opportunity to photograph the crews boarding their aircraft and making landing approaches to the 15,000-foot long runway.

Press representatives who wish to cover the STA flights on Thursday should be at the Complex 39 Press Site no later than 6:30 a.m. on Thursday. Transportation will be provided.

On Friday, September 24, news media will have an opportunity to photograph the flight crew leaving the Operations and Checkout Building or arriving at the launch pad as they participate in the countdown demonstration test. Press representatives who wish to cover either the O & C departure or the pad arrival should be at the Press Site no later than 7 a.m.

At the conclusion of the dry countdown demonstration test and a briefing on emergency escape equipment at the pad, the astronauts will meet briefly with news media at a camera mound on the perimeter of the launch pad for a short question/answer and photographic session. News media planning to attend that session should be at the Press Site no later than noon on Friday.

Media representatives with permanent credentials may drive directly to the Complex 39 Press Site from where coverage of the various activities will be staged. Those without credentials must call the News Center at Area Code 305/867-2468 to make the necessary badging arrangements.

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September 20, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1.F.5 #19

[Handwritten signature]

Mark Hess
Kennedy Space Center, Fla.
(Phone: 305/867-2468)

For Release:
Immediate

RELEASE NO: 213-82

PLAYALINDA BEACH TO BE CLOSED DURING SHUTTLE ROLLOUT TO PAD

KENNEDY SPACE CENTER, Fla.--Playalinda Beach will be closed to the public the day the Space Shuttle is moved to the launch pad. Currently, rollout is planned for Tuesday, September 21.

Access to the beach, which is adjacent to Pad 39-A, the space shuttle launch site, will be closed at sunset on September 20 and remain closed all day on September 21. The beach will be reopened to the public at its normal time on September 22 with normal access hours to be observed until final launch preparations begin mid-November.

Gate 6T, the access point to the beach, located east of the Kennedy Parkway's intersection with Florida Route 402, will be open only to badged KSC personnel during the rollout.

The beach will remain open until the STS-5 countdown is started, approximately five days prior to the scheduled November 11 launch, with the exception of September 28 when the beach will again be closed for a propellant loading test of the shuttle's external tank.

Individuals concerned with beach status during the period preceding the STS-5 launch may contact the Canaveral National Seashore Office at Area Code 305/867-4675 between the hours of 7:30 a.m. and 5 p.m. Beach access status is also kept up-to-date on the Seashore's automatic answering telephone at 305/867-2805.

If there is a change in the rollout date, it will be announced as soon as possible. As a ground rule, the beach will be closed all day on whichever day the vehicle is moved to the pad.

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September 20, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5#19 K
For Release:

Weida G. Tucker
305/867-2468
RELEASE NO: 213-82

Immediate

LAKELAND CONSTRUCTION COMPANY AWARDED CONTRACT BY NASA

KENNEDY SPACE CENTER, FLA. - NASA's John F. Kennedy Space Center has awarded a contract to a small business in Lakeland, Fla., Specialty Maintenance and Construction, Inc., valued at \$318,557. The award provides for Specialty Maintenance and Construction to perform fabrication and assembly of a Multiuse Mission Support Equipment payload handling fixture to be used in support of the Space Shuttle.

This payload handling fixture will be the first of its kind ever built. It will be an invaluable tool if a Space Shuttle orbiter is ever forced to land at a contingency landing site. The fixture will be equipped to facilitate the removal of payloads from the orbiter if such a situation should occur. The fixture will be a portable device divided into seven segments for easy transport. These sections can be flown via C-5 aircraft wherever needed and assembled on-site. When assembled, the payload handling fixture will weigh 70 tons, and measure approximately 70 feet long, 20 feet wide, and 18 feet tall. Once assembled, the device will roll on truck bogie wheels and be towed to the orbiter, where the payloads can be removed and transferred to the payload handling fixture.

The fixed price contract provides for the payload handling fixture to be delivered to the Kennedy Space Center early in 1983. It will be shipped to the Kennedy Space Center by truck and will go to the Launch Equipment Test Facility. At that time, the segments will be assembled, placed on truck bogies and towed to a mock retrieval site to test its performance capabilities, with and without a test load.

The Kennedy Space Center is the primary launch and landing site of the reusable Space Shuttle vehicle, which provides routine and economical access to space. The next launch, scheduled for no earlier than November 11, will mark its fifth mission into space and its first operational mission.

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September 20, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867 2468

1F.5 #19 ✓

John Lawrence
Johnson Space Center, Tx
(Phone: 713/483-5111)

For Release:
IMMEDIATE

Mark Hess
Kennedy Space Center, FL
(Phone: 305/867-2468)

RELEASE NO. 215-82

NOTICE TO EDITORS/NEWS DIRECTORS

STS-5 MEDIA BRIEFINGS SCHEDULED OCTOBER 5 AND 6

KENNEDY SPACE CENTER, Fla.--Media briefings in preparation for the fifth flight of the Space Shuttle Columbia will be conducted Tuesday and Wednesday, Oct. 5 and 6, at Johnson Space Center, Houston.

On Tuesday, Oct. 5, lead flight director Tommy Holloway will discuss the STS-5 flight plan at 2 p.m. EDT. Subsequent briefings will be on extra-vehicular activities at 3 p.m.; payloads, 4 p.m.; and student experiments, 5 p.m.

Shuttle astronauts Vance Brand, commander; Bob Overmyer, pilot; and Joe Allen and Bill Lenoir, mission specialists, will be available for questions at a news conference at 10 a.m. EDT, Wednesday, Oct. 6.

Local news media may cover all of the conferences from the Complex 39 Press Site Auditorium at KSC. All events will be available via satellite for television media, and there will be a two-way audio capability so that news media may ask questions.

The news conferences will also be available over the V-2 circuit which can be obtained by calling the KSC operator at 305/867-7110 and asking to be patched into the V-2 circuit.

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September 20, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

For Release:

Weida G. Tucker
Area Code 305/867-2468
Release No: 217-82

Immediate

COMPUTER SCIENCES CORPORATION AWARDED SHUTTLE CONTRACT

KENNEDY SPACE CENTER, FLA. - Computer Sciences Corporation of Falls Church, Va., has been awarded a fixed-price contract valued at \$7,781,723 for a Shuttle Inventory Management System (SIMS) II to support the Space Shuttle program at the Kennedy Space Center.

The SIMS II system will assist NASA in ensuring that spare parts, supplies and materials are available as needed to support the shuttle program. The contract will call for delivery of automatic data processing equipment, communications equipment, and computer software. The award also provides for employment of software creation and maintenance personnel, and training of terminal users, computer operators and system controllers.

The system will be used to control the movement and location of material to support shuttle program needs, including spare parts, cargo ground support equipment and flight hardware for the spacecraft.

The contract stipulates that the equipment will be installed and operational by August 13, 1984. It also provides for similar work to be performed at Vandenberg Air Force Base, Calif.

Kennedy Space Center is the primary launch and landing site of the revolutionary Space Shuttle, which provides routine and economical access to space. The fifth flight and first operational mission of the shuttle is presently scheduled for launch on November 11.

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September 30, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Weida G. Tucker
Area Code 305/867-2468
Release No: 219-82

Immediate

IBM CORPORATION AWARDED CONTRACT BY NASA TO SUPPORT SHUTTLE

KENNEDY SPACE CENTER, FLA. - NASA's John F. Kennedy Space Center has awarded a \$1,742,850 extension of a current contract to the Federal Systems Division of International Business Machines Corporation, Owego, N. Y., to support the Space Shuttle program. The contract calls for IBM to manufacture and deliver one general purpose computer system for support of the Air Force Orbiter Functional Simulator at Cape Canaveral Air Force Station, by May 1, 1984. The cumulative value of the company's fixed-fee contract with the National Aeronautics and Space Administration to provide these services is \$2,114,091.

The Orbiter Functional Simulator is the U. S. Air Force's version of NASA's Cargo Integration Test Equipment (CITE) facility, which verifies the compatibility of payloads with the shuttle orbiter. This computer system is one of the components of the Orbiter Functional simulator.

The Kennedy Space Center is the primary launch and landing site for the reusable Space Shuttle vehicle, now entering its operational era. The next shuttle launch is scheduled for no earlier than November 11.

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October 1, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Weida G. Tucker
Area Code 305/867-2468
Release No: 220-82

Immediate

NASA TO CONDUCT COUNSELING SESSIONS FOR SMALL BUSINESS FIRMS

Kennedy Space Center, FL - The owners of small and disadvantaged businesses in Brevard County who wish to negotiate for contracts with NASA may find counseling sessions being conducted by the agency beginning next week helpful.

The three sessions scheduled for this month are being rotated to different locations of Brevard Community College campuses in an effort to include businessmen throughout the county. The sessions will be conducted by the Industry Assistant's Officer for NASA, Norman R. Perry, of the Procurement Division. "We will counsel firms on how to get on the bidding list for contracts, types of services needed, and how to do business with the Kennedy Space Center," Perry said.

All sessions are scheduled from 9 a.m. until noon. The first one will be held October 8 at BCC's Titusville Campus in the Whispering Hills Center, Room 104. On October 13, a session will be conducted at the Cocoa Campus, Building A, Room 122. The final session for this month is planned for October 26 at the Melbourne Campus, Occupation Building, Room 216.

These counseling sessions will be held monthly until further notice. However, the dates for the November sessions will be announced at a later time. For further information, contact Norman R. Perry at 867-7353.

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October 1, 1982

NASA News

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Weida G. Tucker
Area Code 305/867-2468
Release No: 222-82

Immediate

ROBINSON EQUIPMENT COMPANY, LOCAL FIRM, AWARDED NASA CONTRACT

Kennedy Space Center, Fla. - Robinson Equipment Company of Mims, a small business firm, has been awarded a contract by NASA valued at \$27,788.

The fixed-price contract calls for Robinson Equipment to deliver two Massey-Ferguson Model 275 tractors to the Kennedy Space Center by October 23, 1982.

The tractors will replace similar ones which have outlived their usefulness. They will be used for general grounds maintenance at the Kennedy Space Center.

Kennedy Space Center is the primary launch and landing site of the revolutionary Space Shuttle, which provides routine and economical access to space. The fifth shuttle mission is presently scheduled for launch no earlier than November 11.

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October 5, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19
K
For Release:

Hal Stall
Johnson Space Center, TX
Area Code 713/483-5111

IMMEDIATE

Dick Young
Kennedy Space Center, FL
Area Code 305/867-2468

Release No. 224-82

NASA NAMES STS-10 ASTRONAUT CREW

KENNEDY SPACE CENTER, Fla.--Four of the five crew members who will man the Space Shuttle on its first dedicated Department of Defense mission have been selected.

They are NASA astronauts Thomas K. Mattingly, Commander; Loren J. Shriver, Pilot; Ellison S. Onizuka and James F. Buchli, Mission Specialists.

The fifth crew member, an Air Force manned spaceflight engineer, will be named at a later date.

STS-10 is currently scheduled for launch from the Kennedy Space Center in the last quarter of 1983.

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October 5, 1982

NASA News

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

Weida G. Tucker
Area Code 305/867-2468
Release No: 230-82

For Release:
Immediate

RESPONSE TO SMALL BUSINESS SESSIONS PROMPTS CHANGE IN PROCEDURES

KENNEDY SPACE CENTER, Fla. - Tremendous response to counseling sessions being offered by NASA for small and disadvantaged businessmen has prompted a change in procedures for those who wish to attend future sessions.

Persons who desire individual counseling in either of the two remaining sessions being conducted this month should contact Norman R. Perry, NASA's Industry Assistance Officer, at 867-7353, for an appointment.

Sessions are scheduled for October 13 and October 26 at different locations of Brevard Community College, from 9 a.m. until noon. The October 13 meeting will be held at the Cocoa Campus, Building A, Room 122. On October 26, the session will be repeated at the Melbourne Campus, Occupation Building, Room 216. The sessions are being rotated to different locations to include businessmen throughout the county.

The individual counseling sessions are being offered by NASA's Procurement Division to counsel firms on how to get on the bidding list for contracts, types of services needed, and how to do business with the Kennedy Space Center.

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October 8, 1982

NASA News

1F.5 #19

K

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Jim Ball
Area Code 305/867-2468

IMMEDIATE

KSC Release No. 233-82

NOTICE TO EDITORS/NEWS DIRECTORS

INDONESIAN PRESIDENT SOEHARTO TO VISIT KSC

KENNEDY SPACE CENTER, Fla. -- Indonesian President Soeharto will tour Kennedy Space Center on Wednesday, October 13 as part of an official state visit to the United States.

The Indonesian leader and his wife will be accompanied by a party of Indonesian officials and press correspondents on their tour of the spaceport's shuttle processing and launch facilities.

The Presidential party will arrive at the Shuttle Landing Facility at 1 p.m. following a flight from Washington D.C. They will be greeted by KSC Center Director Richard G. Smith and Mrs. Smith.

Their tour will include a visit to the Orbiter Processing Facility, where the shuttle orbiter Challenger is being readied for its first flight, the Launch Control Center, and Pad 39A, where final preparations are underway for the first operational Space Shuttle mission.

Following the tour of KSC, President Soeharto and his party will depart at 3:30 p.m. for Houston, Texas, where their itinerary includes a visit to the Johnson Space Center.

All press coverage of the visit will be staged from the Complex 39 Press Site. Media representatives who wish to attend should be at the Complex 39 Press Site no later than noon. Transportation will be provided to the SLF for the arrival and for those who wish to follow the party on its tour.

Permanently badged media representatives may proceed directly to the Complex 39 Press Site. Others should call 867-2468 for badging instructions.

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October 8, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

Jim Ball
Area Code 305/867-2468

For Release:
IMMEDIATE

KSC Release No. 235-82

NOTICE TO EDITORS/NEWS DIRECTORS

NASA TO HONOR KSC EMPLOYEES AT AWARDS CEREMONY

KENNEDY SPACE CENTER, Fla. -- NASA will honor 270 government and contractor space center employees at the annual KSC awards ceremony to be held at 9 a.m. Thursday, Oct. 14, at the Complex 39 Turning Basin.

Deputy NASA Administrator Dr. Hans Mark and KSC Center Director Richard G. Smith will present the awards, which include both individual honors and group achievement awards.

Permanently badged news media representatives who wish to cover the ceremony may do so by driving directly to the Complex 39 Press Site. Others should call 867-2468 for badging instructions. Media personnel planning to cover the event should be at the news center by 8:45 a.m.

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October 8, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

Jim Ball
Area Code 305/867-2468

For Release:
IMMEDIATE

KSC Release No. 227-82

KSC RECEIVING SPECIAL RECOGNITION AWARD FOR ECONOMIC IMPACT

KENNEDY SPACE CENTER, Fla. -- Kennedy Space Center will receive a special recognition award for its contributions to the Brevard County economy during an Industry Appreciation Week banquet Friday, October 15.

KSC Center Director Richard Smith is scheduled to accept the award on behalf of the space center. The event is being held at the Holiday Inn Oceanside in Indian Harbor Beach.

"Kennedy Space Center is being presented with this special award in recognition of its long contribution to the economy of Brevard County," said John McCauley, executive director of the Brevard Economic Development Council.

In addition to a substantial direct contribution to the area economy, Kennedy Space Center is attracting new space-related industrial firms to the county, McCauley said.

KSC's impact on the area economy can be measured by the net take-home pay earned by the 14,000 government and contractor workers employed at the center. For fiscal year 1982, this figure is estimated to be approximately \$300 million.

In addition, Kennedy Space Center is one of Florida's leading attractions for out-of-state and foreign visitors. It is estimated that the total value of this tourism in 1981 was \$72 million.

Kennedy Space Center is the primary launch and landing site of the Space Shuttle, America's revolutionary new space transportation system which is now entering its operational phase.

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October 12, 1982

NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 245-82

IBM AWARDED CONTRACT BY NASA FOR STUDY IN SUPPORT OF SHUTTLE

KENNEDY SPACE CENTER, Fla. - The Federal Systems Division of International Business Machines Corporation, Cape Canaveral, has been awarded a \$434,000 contract by NASA's John F. Kennedy Space Center.

The contract calls for IBM to conduct a study for further development of a computer software program which aids in automated planning and scheduling for Space Shuttle payloads. The study is to be completed by September 30, 1983.

Kennedy Space Center is the primary launch and landing site for the revolutionary Space Shuttle, a new transportation system which provides routine and economical travel to space. The fifth mission and first operational flight of the shuttle is presently scheduled for November 11.

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October 22, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

Dave Garrett,
NASA Headquarters,
202/755-3090

For Release:
Immediate

Hugh Harris
Kennedy Space Center,
305/867-2468

KSC Release No. 248-82

AIR FORCE TO JOIN NASA IN SHUTTLE PROCESSING CONTRACT PROCUREMENT

KENNEDY SPACE CENTER, Fla. - The Air Force Space Division has made a decision to join NASA in a procurement effort which will eventually lead to selection of a single contractor for the processing of the Space Shuttle at both the NASA Kennedy Space Center and Vandenberg Air Force Base launch facilities.

NASA expects to issue a request for proposals for this joint effort in January, 1983.

Both NASA and the Air Force will consolidate contracts for flight hardware processing at both the Florida and California launch sites. At present, processing of Space Shuttle hardware is carried out at the launch site by several contractors who supply the flight hardware.

Originally, the Air Force had not defined a time to phase in the Shuttle Processing Contract at Vandenberg Air Force Base. It is now planned that the shuttle processing contractor will be phased into Vandenberg processing as early as practicable and will be assigned launch responsibility in accordance with transition criteria. In accomplishing the phase-in, the shuttle processing contractor will work with the incumbent launch site contractor at the Air Force Base.

The new contract will result in significant cost savings during the operational era of shuttle. It will minimize interfaces at launch and landing sites and focus clear responsibility on a single contractor. This focus of responsibility should improve flight safety and mission effectiveness.

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October 22, 1982

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

KSC Release No. 242-82
Jim Ball
Area Code 305 867-2468

Immediate

PLAYALINDA BEACH TO CLOSE FOR SHUTTLE LAUNCH

KENNEDY SPACE CENTER, Fla. --The Cape Canaveral National Seashore's Playalinda Beach, located on NASA property just north of Launch Complex 39, will be closed to the public starting Sunday November 7 at 6:30 p.m.

Safety considerations require closing the beach during the Space Shuttle launch countdown and liftoff. The fifth flight of the orbiter Columbia is scheduled for launch at 7:19 a.m. November 11.

The beach will remain closed until 6:30 a.m. Friday, November 12. If the liftoff is postponed, the beach will remain closed until 6:30 a.m. the day after the launch.

Badged space center employees will be allowed to enter KSC via Gates 4TT (State Roads 402 and 406) until 5:50 a.m. the morning of the launch. Gate 6TT, located on State Road 3 south of the Haulover Canal, will close to all traffic, including badged space center personnel, at 3 p.m. November 10.

Anyone planning an excursion to Playalinda Beach around the time of a scheduled Shuttle launch should check on whether the beach is open by calling the Canaveral National Seashore at 867-4675. Certain pre-launch operations, such as tank fueling tests, can also require that the beach be closed.

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November 1, 1982

NASA News

1F.5 #19

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National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 301-82

Immediate

NASA AWARDS WACKENHUT CONTRACT FOR PROTECTIVE SERVICES AT KSC

KENNEDY SPACE CENTER, Fla. - Wackenhut Services, Inc., of Coral Gables, Fla., has been awarded a \$1,377,116 extension of its contract with NASA to provide protective services at the Kennedy Space Center.

Under the terms of the contract, Wackenhut is to furnish security, law enforcement and fire protection and rescue personnel at KSC. Wackenhut is also to provide plant protection and fire prevention programs for employees at the Center. The extension covers the period from November 1 to November 30, 1982.

Wackenhut has provided protective services at the Kennedy Space Center since 1978. The new award brings the total contract value to \$50,370,921.

Kennedy Space Center is the primary launch and landing site of the revolutionary Space Shuttle, which is designed for routine and economical flights to space. The Orbiter Columbia will be launched on its fifth mission into space no earlier than November 11.

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November 1, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

For Release

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 304-82

Immediate

REYNOLDS, SMITH AND HILLS AWARDED CONTRACT FOR SUPPORT OF SHUTTLE

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a \$1,060,000 contract extension to Reynolds, Smith and Hills, a Jacksonville architectural engineering firm, for support of the Space Shuttle program.

Reynolds, Smith and Hills will provide design services for conversion of a mobile launcher used in the Apollo program to a mobile launcher platform that can be used for the Space Shuttle. The fixed-price contract stipulates that the design will be completed by August 31, 1983.

The mobile launcher platform serves as the foundation from which the Space Shuttle is assembled, transported, and launched. The conversion of the platform will require that the tower sections, which provide a service structure from which technicians can work, be removed. A fixed service structure for the shuttle is located at the launch pad. Exhaust holes will also have to be built to accommodate the two solid rocket boosters on the shuttle, and the systems on board the mobile launcher platform, such as power and cryogenics, will be upgraded to satisfy the demands of the shuttle.

Kennedy Space Center is the primary launch and landing site for the revolutionary Space Shuttle. The shuttle is a new space transportation system which provides routine and economical access to space for governmental, industrial and private use. The fifth mission and first operational flight of the shuttle is scheduled to be launched no earlier than November 11.

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November 1, 1982

NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Mark Hess
Kennedy Space Center, FL
(Phone: 305/867-2468)

November 3 , 1982

KSC RELEASE NO: 306-82

TITUSVILLE FIRM WINS BID TO MODIFY ORBITER PROCESSING FACILITY

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a \$1,252,000 contract to David Boland, Inc., Titusville, Florida, for modifications to the Orbiter Processing Facility (OPF) where Space Shuttle orbiters are prepared for launch.

The work will be done in the Orbiter Processing Facility at KSC. The OPF serves as a sophisticated hangar for orbiter spacecraft between missions. It is in the OPF that spacecraft systems are revalidated for flight, and horizontally-processed cargoes are installed in the cargo bay.

The OPF consists of two identical high bays to allow simultaneous processing of two orbiters.

Under terms of the contract, Boland will:

Install payload contamination controls in both OPF high bays to keep clean, filtered air blowing through the orbiter's payload bay during pre-launch processing.

Modify several platforms in Bay 1 of the OPF to provide better access for working on the spacecraft.

Install in Bay 2 a series of eight valve panels in the system used to drain left-over hypergolic propellants out of the orbiter.

Work under the fixed price contract is to be done within 275 calendar days. The award was one that was set-aside for a small business firm.

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

1F.5 #19

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For Release:

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 310-82

Immediate

NASA AWARDS MCGREGOR & WERNER EXTENSION OF CONTRACT

KENNEDY SPACE CENTER, Fla. - McGregor and Werner, Inc., of Washington, D. C., has been awarded a \$515,530 contract extension by NASA's John F. Kennedy Space Center to provide printing, publication and reproduction services for the Space Center. This extension brings the cumulative value of McGregor and Werner's contract with NASA to \$21,638,882.

The cost-plus-fixed-fee-contract, which covers the period from November 1 through November 30, 1982, stipulates that McGregor and Werner will functionally manage printing, publication, reproduction, graphics, and microfilming and audiovisual operations for KSC.

Kennedy Space Center is the primary launch and landing site for the revolutionary Space Shuttle, a new space transportation system which makes possible routine and economical flights to space. Two commercial satellites will be carried aboard the shuttle's fifth flight into space, marking the first operational mission of the spacecraft. The next Space Shuttle launch is presently scheduled for no earlier than November 11.

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November 3, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF. 5 #19

For Release:

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 311-82

Immediate

HOLLOWAY CORPORATION AWARDED CONTRACT FOR SUPPORT OF SHUTTLE

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded a \$1,269,770 contract to the Holloway Corporation, a Titusville, Fla., construction firm, for support of the Space Shuttle.

The contract calls for the Holloway Corporation to construct permanent environmental control system facilities which will be used for shuttle orbiters while they are being processed and readied for flight in the Orbiter Processing Facility at KSC. The Holloway Corporation will construct two equipment rooms which will house the system that will supply an air-conditioned atmosphere to ensure the environmental stability of the orbiter. Presently, a mobile environmental control system is used for the orbiter as it is transported from one place to another for processing. The contract provides for the work to be completed by September 30, 1983.

The Kennedy Space Center is the primary launch and landing site for the revolutionary Space Shuttle, which provides routine and economical flight into space for government, industrial and private use. The fifth flight and first operational mission of the shuttle, which will carry two commercial satellites aboard the spaceship for deployment into space, is currently scheduled for November 11.

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November 4, 1982

NASA News

IF.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:
Immediate

Ken Senstad/Dick Young
Area Code 305/867-2468
KSC Release No. 316-82

NOTE TO EDITORS/NEWS DIRECTORS

TDRS-I SATELLITE VIEWING AND BRIEFING SCHEDULED

KENNEDY SPACE CENTER, Fla. - A press viewing and briefing for the Tracking and Data Relay Satellite-I (TDRS-I) will be held Wednesday, November 17. The briefing will begin at 2:00 p.m. in the High Bay of the Vertical Processing Facility at the Kennedy Space Center. Project officials from SPACECOM, Inc., TRW and NASA will be on hand to discuss the satellite which will be launched on the first flight of the Space Shuttle Challenger, now scheduled for launch in late January 1983.

Media representatives who wish to attend should report to the Complex 39 Press Site no later than 1:30 p.m. Transportation will be provided to and from the Vertical Processing Facility.

Permanently badged media representatives, or those with STS-5 credentials, may proceed directly to the Complex 39 Press Site.

Media representatives without credentials should call the News Center at 305/867-2468 to make access arrangements.

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November 12, 1982

NASA News

1F.5 #19

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 318-82

Immediate

IBM CONTRACT FOR LAUNCH PROCESSING SYSTEM SUPPORT MODIFIED

KENNEDY SPACE CENTER, FLA. - NASA's John F. Kennedy Space Center has awarded a \$2,438,250 contract modification to the Federal Systems Division of International Business Machines Corporation, Cape Canaveral, Fla., for support of the Space Shuttle program.

This award is for additional services under an existing cost-plus-award-fee contract with IBM to provide systems engineering and software development services for the Launch Processing System (LPS) at KSC. This contract modification calls for IBM to develop techniques that will aid LPS users in developing applications software for a multi-flow, multi-vehicle environment and increasing launch rates.

IBM provides the detailed design, development, validation, configuration management, and maintenance of the LPS system software, which provides programming instructions to the sophisticated computer system used in the automated checkout and launch of Space Shuttle vehicles from KSC.

This contract modification is for the period from July 1, 1982 through September 30, 1983 and brings the cumulative value of the parent contract to \$88,352,204.

The Kennedy Space Center is the primary launch and landing site of the Space Shuttle, which provides routine and economical flights into space for governmental, industrial and commercial use. The sixth mission of the shuttle is presently planned for early 1983.

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November 19, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

Steve Newborn
Area Code 305-867-2468
KSC RELEASE NO. 319-82

For Release:
Immediate

MULTI-MILLION DOLLAR CONTRACT AWARDED FOR SHUTTLE LAUNCH PAD MODIFICATIONS

KENNEDY SPACE CENTER, Fla. -- A \$5.9 million joint venture contract has been awarded to the firms of Briel, Rhame, Poynter & Houser and PRC Systems Service Company, located in Cocoa Beach, Florida. The contract calls for the design of ground support equipment at Launch Pad 39 B, which will be used to launch NASA's Space Shuttle beginning in the mid 1980's.

The fixed-price contract covers the period from November 22, 1982 through June 30, 1983. The provisions of the contract will be carried out at PRC's facilities at 151 Center St., Cape Canaveral, and at the Kennedy Space Center.

The contract calls for the design of about half of the ground service equipment (GSE) that will be installed at Launch Pad 39 B. The GSE consists of the components and equipment that regulates and distributes gases and propellants to the launch pad. The gases that are distributed include breathing air, freon coolants, nitrogen, hydrogen, helium and oxygen. Propellants such as hypergolic fuels that are used by the orbiter's maneuvering system engines are distributed through this system.

Major elements of the GSE to be designed include the fuel cell servicing system. The orbiter's fuel cells provide electricity to the crew during flight. The External Tank's gaseous hydrogen vent and the gaseous oxygen vent arm and cap, located up on the 220 foot level of the Fixed Service Structure (launch tower), will be installed. Liquid oxygen and hydrogen electrical control panels will also be installed, which are used to control the system which regulates the flow of supercold propellants to the shuttle's huge external tank.

The modification of Pad 39 B for the shuttle era should be completed by January, 1986. The pad will supplement Launch Pad 39 A, now being used for Space Shuttle launches. The next Shuttle liftoff from Pad 39 A is scheduled for late January 1983, which will be the maiden voyage of the orbiter Challenger, the second in a fleet of four orbiters planned for use by NASA.

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November 23, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19
11-23

Weida G. Tucker
Kennedy Space Center
Area Code 305/867-2468

For Release:
Immediate

Dave Drachlis
Marshall Space Flight Center
Area Code 205/453-0034

KSC Release No: 321-82

MISSION SEQUENCE TEST FOR SPACELAB 1 COMPLETED

KENNEDY SPACE CENTER, Fla.--The first simulation of major segments of the Spacelab 1 mission - using actual flight experiments and portions of the laboratory - was successfully completed November 18 at the Kennedy Space Center.

"The major challenge of the Mission Sequence Test (as it is called) was assembling and testing 39 instruments developed by scientists in eleven countries," said Bill Jewell, chief of the Experiments Processing Division at Kennedy Space Center. "More than 100 principal investigators and other scientists came from Europe and the U. S. to the center for integration and testing."

Successful completion of the test moved the first mission of the European Space Agency (ESA) developed research laboratory a step closer to its scheduled September 1983 launch aboard the Space Shuttle.

The purpose of the test, which began October 29, was to verify the compatibility of experiments with each other and with their Spacelab support subsystems. The test involved the execution of selected portions of the Spacelab 1 mission timeline - when several experiments are operated simultaneously and when experiments interact extensively with the Spacelab subsystems.

Portions of the mission timeline were conducted and the experiments were operated as if the Spacelab was in orbit. The Spacelab 1 science crew participated in some of the testing.

The mission sequences, totalling 82 hours, were separated by periods for planned evaluation and reconfiguration. "Engineers, technicians and scientists reviewed, retested and repaired minor hardware and systems problems during those periods," Jewell said. He noted that only a few minor problems are left to be resolved before the flight next fall.

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The Mission Sequence Test was conducted by technicians and engineers in the Operations and Checkout Building at the Kennedy Space Center, where the Spacelab is being assembled and checked out for its flight. Teams of engineers also participated in the test from the Huntsville Operations Support Center (HOSC) at Marshall Space Flight Center. They monitored the activities from consoles in the HOSC and were on hand to support both the payload and the Spacelab subsystems operations.

Spacelab is being developed by ESA as Europe's contribution to the NASA Space Transportation System. The modular, reusable laboratory consists of a cylindrical pressurized module in which scientists can work, and a series of pallets which will support experiments requiring direct exposure to space.


Spacelab 1, its first mission, is a joint venture of NASA and ESA, during which more than 70 separate investigations will be conducted in five scientific disciplines.

The Kennedy Space Center is responsible for processing the laboratory for flight and for launching it aboard the Space Shuttle. The Marshall Space Flight Center is responsible for monitoring development of the laboratory, and for managing the first three missions.

November 23, 1982

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M. Konjevich
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NASA News

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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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For Release

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 324-82

Immediate

BOEING AWARDED EXTENSION OF GROUND SERVICES CONTRACT BY NASA

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded Boeing Services International, Inc., Kennedy Space Center, Fla., a \$2,581,363 extension to an existing contract. This contract extension is an exercise of an option for work functions which will eventually be transferred to KSC's base operations contract (BOC). The base operations contract will consolidate institutional and support services now provided by 14 different contractors at the Space Center. EG&G, Inc., of Wellesley, Mass., was recently selected for negotiations that will lead to the award of this contract.

Under the terms of the new contract extension, BSI will provide certain institutional support services, which includes utilities, facilities and some technical operations, for a one-month period.

This new cost-plus-fixed-fee extension covers the period from December 1 through December 31, 1982, and brings the total value of the contract to \$314,189,908, since its inception in July 1977.

Kennedy Space Center is NASA's primary launch and landing site for the reusable Space Shuttle, which provides routine and economical access to space. The Orbiter Challenger is presently being readied for its maiden flight into space, now scheduled for launch in early 1983.

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December 7, 1982

NASA News

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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 326-82

Immediate

WACKENHUT AWARDED CONTRACT EXTENSION FOR PROTECTIVE SERVICES

KENNEDY SPACE CENTER, Fla. - Wackenhut Services, Inc., of Coral Gables, Fla., has been awarded a \$1,383,711 extension of its contract with NASA to provide protective services at the Kennedy Space Center.

This new award brings the total contract value to \$51,734,632, and covers the period from December 1 to December 31, 1982. Under the terms of the contract, Wackenhut is to furnish security, law enforcement and fire protection and rescue personnel at KSC. Wackenhut is also to provide plant protection and fire prevention programs for employees at the center.

The Kennedy Space Center is the primary launch and landing site for the revolutionary Space Shuttle, which is designed for routine and economical flights to space. The sixth mission of the shuttle is presently scheduled for launch in early 1983.

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December 7, 1982

NASA News

National Aeronautics and
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John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 305 867-2468

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For Release:

Weida G. Tucker
Area Code 305/867-2468
KSC Release No: 329-82

Immediate

NASA AWARDS ATLANTIC TECHNICAL SERVICES CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla. - NASA's John F. Kennedy Space Center has awarded Atlantic Technical Services of Longwood, Fla., a small business firm, a \$110,406 contract extension to provide mail and distribution services at KSC. This award brings the cumulative value of Atlantic's contract with NASA to a total of \$2,751,813.

The contract covers the period from May 1, 1980 through December 31, 1982. Under the terms of the fixed-price contract, Atlantic will operate the branch post office at KSC, and provide pick-up, processing, and delivery of all mail for NASA and NASA contractors at the space center.

Atlantic will also be responsible for the operation of submail and distribution facilities at KSC, which are located at the Operations and Checkout Building, the Central Instrumentation Facility, the Vehicle Assembly Building, the Launch Control Center, and the Cape Canaveral Air Force Station. In addition, Atlantic will provide courier service to city post offices and to Patrick Air Force Base. Other responsibilities include the operation and maintenance of an automatic distribution system, and the operation of a document control unit.

Kennedy Space Center is the primary launch and landing site for the reusable space shuttle, which provides routine and economical flights to space for government, industrial and commercial use. The sixth mission of the shuttle is presently scheduled for launch early in 1983.

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December 10, 1982

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.5 #19

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Jim Ball
Area Code 305/867-2468
KSC Release No. 327-82

For Release:

IMMEDIATE

INCREASED SHUTTLE AND UNMANNED LAUNCH ACTIVITY PLANNED FOR 1983

KENNEDY SPACE CENTER, Fla. -- Five scheduled Space Shuttle flights and 10 planned unmanned launches will make 1983 a busy year for KSC launch teams.

Shuttle orbiter Challenger, Columbia's sister ship, will make its debut early in the year with its first orbital flight scheduled for late January.

The flight, designated STS-6, will involve delivery into orbit of the first Tracking and Data Relay Satellite.

Challenger is also slated to fly STS-7, currently set for late April, and STS-8, scheduled for early July.

Aboard Challenger for STS-7 will be a Canadian communications satellite and the Indonesian communications satellite Palapa-B1.

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Also scheduled to be carried on STS-7 is a pallet of NASA-sponsored experiments and a unique German experimental satellite called SPAS-01.

Challenger's third flight, STS-8, is scheduled to begin with a spectacular nighttime liftoff. In the cargo bay will be the second Tracking and Data Relay Satellite, TDRS-B, and a combined communications and weather satellite being launched for India.

While Challenger is being broken in, Columbia will be undergoing modifications at Kennedy Space Center for next fall's Spacelab 1 mission, presently set for late September.

Having logged more than 10 million miles during four development flights and the Space Shuttle's first operational mission, Columbia will return to service on STS-9 with an international crew of six. The research mission will be the first flight of the European-built Spacelab.

The final Shuttle flight of the year will be flown by Challenger in November with a Department of Defense payload aboard.

At the same time operational Shuttle activity is picking up, expendable vehicle launch teams will be busy with a roster of 10 scheduled unmanned missions. Eight launches of the workhorse Delta rocket are forecast for 1983. Two Atlas Centaur launches are currently listed.

An Infrared Astronomical Satellite (IRAS) to be launched on a Delta rocket from the Western Test Range in California leads the 1983 expendable vehicles schedule. The IRAS research satellite is currently scheduled for launch in late January.

The remaining unmanned launches will all be from NASA facilities on the Cape Canaveral Air Force Station.

Next on the agenda will be an INTELSAT V international telecommunications satellite set for launch atop an Atlas Centaur in mid February.

An RCA Satcom satellite is slated for launch aboard a Delta in late March followed by the weather satellite GOES-F, presently set for liftoff in late April. GOES stands for Geostationary Operational Environmental Satellite.

In early June, then in late July, August, September, and October, a variety of Delta-launched communications satellites are scheduled for delivery into space.

A presently unassigned Delta launch is available for early December.

The final unmanned mission of the year will be the first in a series of higher capacity telecommunications spacecraft for INTELSAT. The INTELSAT V-A is scheduled to be lofted into space aboard an Atlas Centaur in December.

December 1982

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1983 LAUNCH ACTIVITY FORECAST

| LAUNCH VEHICLE | PAYLOAD | LAUNCH SITE | DATE |
|------------------------|------------------|--------------|-----------|
| <u>STS-6</u> (OV 099) | TDRS-A | KSC | January |
| Delta 166 | IRAS | VAFB, Calif. | January |
| Atlas Centaur 61 | INTELSAT V | CCAFS | February |
| Delta 167 | RCA-F | CCAFS | March |
| <u>STS-7</u> (OV 099) | ANIK-C, Palapa-B | KSC | April |
| | SPAS-1, OSTA-2 | | |
| Delta 168 | GOES-F | CCAFS | April |
| Delta 169 | Galaxy-A | CCAFS | June |
| <u>STS-8</u> (OV 099) | TDRS-B, INSAT 1B | KSC | July |
| Delta 170 | Telstar-3A | CCAFS | July |
| Delta 171 | RCA-G | CCAFS | August |
| Delta 172 | Galaxy-B | CCAFS | September |
| <u>STS-9</u> (OV 102) | Spacelab 1 | KSC | September |
| Delta 173 | NATO III-D | CCAFS | October |
| <u>STS-10</u> (OV 099) | DOD 84-1 | KSC | November |
| Atlas Centaur 62 | INTELSAT V-A | CCAFS | December |

CCAFS denotes Cape Canaveral Air Force Station

VAFB denotes Vandenberg Air Force Base, California

OV 099 denotes the Orbiter Challenger

OV 102 denotes the Orbiter Columbia

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